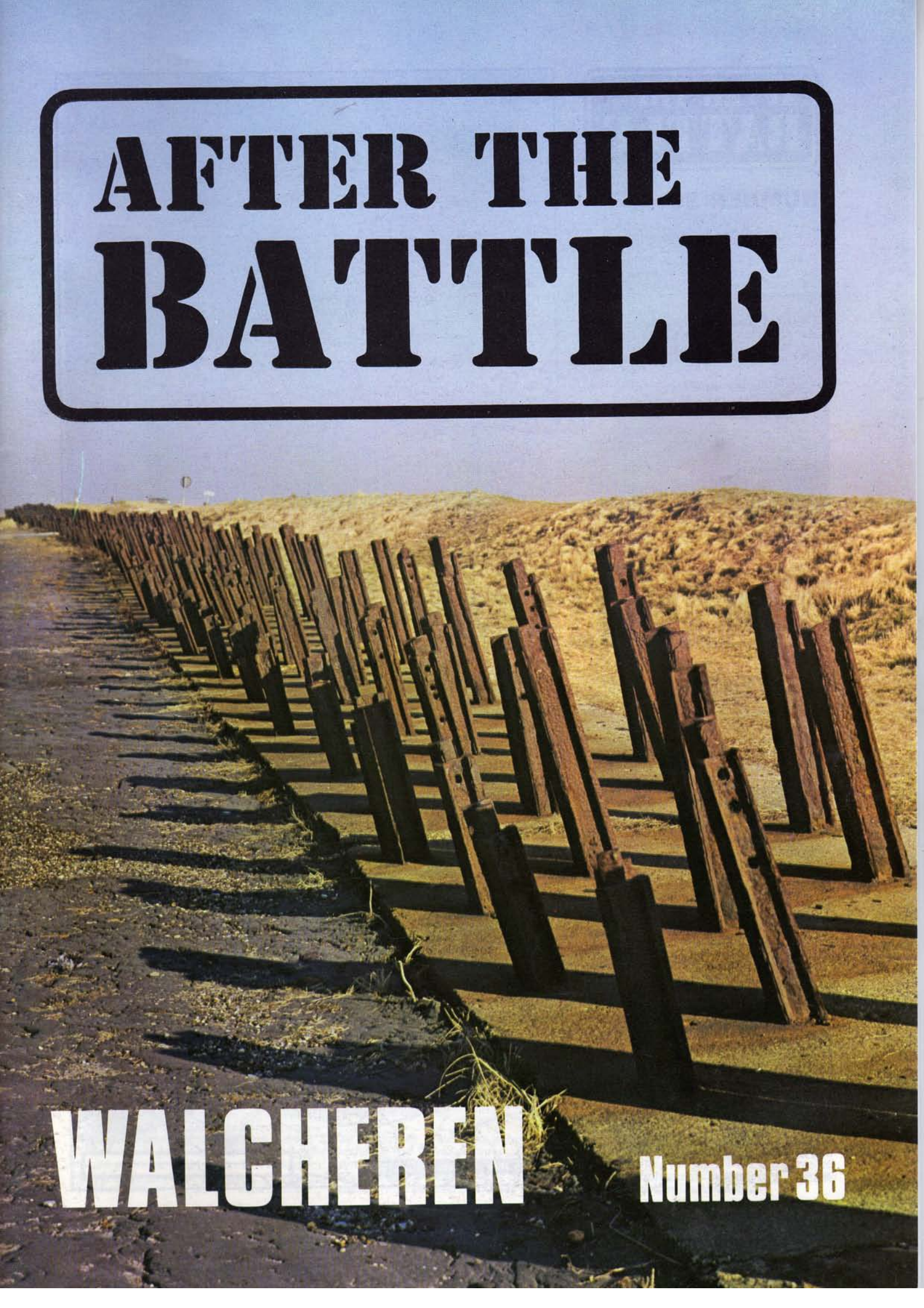
AFTER THE BATTLE



WALCHEREN

Number 36

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Front Cover: Anti-invasion defences still to be seen on Walcheren are these railway lines cemented in the sea dyke to the north of Westkapelle.

Centre Pages: Memorial to the liberation of Walcheren at Westkapelle just north of the gap blown in the dyke on October 3, 1944.

Back Cover: The *U-995*, preserved as a memorial to German submariners, at Laboe on the eastern bank of the Kiel Fiord in northern Germany (Karl-Heinz Schmeelke).

Acknowledgement
John Reed would like to acknowledge assistance received from the curator and staff of the Tank Museum at Bovington, and the expert advice on defence works given by Lieutenant-Colonel C. T. P. Holland, MBE, of the Royal Engineers Museum at Chatham on his research for his article on Walcheren. He is also particularly grateful to the staff of the Plymouth Naval History Library for their assistance in tracing sources.

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Above: **This War Office map extract, although dated 1950, shows the islands of south-western Netherlands, including Walcheren, as they were in 1944 at the time of Operation INFATUATE. Whilst Antwerp and the banks of the Scheldt were in Allied hands, 'Fortress Walcheren' overlooking the estuary denied access.** *Below:* **After the war extensive land reclamation has widened the causeway with Zuid (south) Beveland and new dykes have created man-made inland seas.**

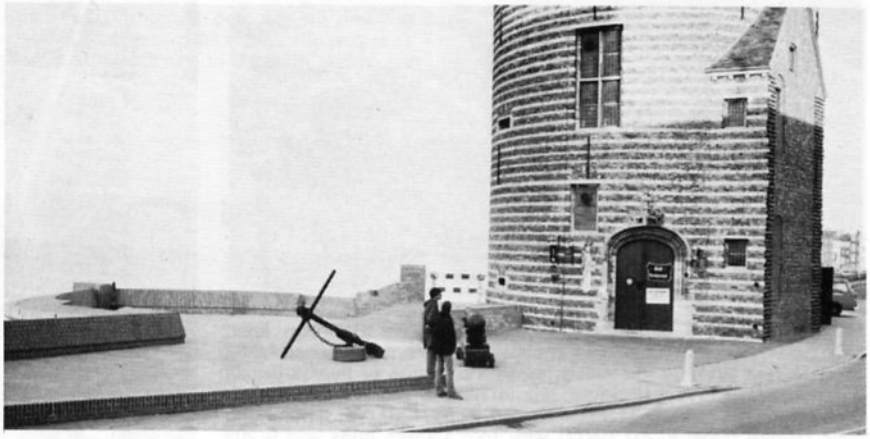
ASSAULT ON WALCHEREN
OPERATION INFATUATE

BY JOHN REED

On September 4, 1944, after a frantic dash which had taken them across 250 miles of northern France and Belgium in only five days, the leading elements of the 11th British Armoured Division entered the Belgian city of Antwerp, with its docks virtually intact. In that moment, the Allied commanders might well have had the realisation of their plans for an early end to the war within their grasp. Yet, in an extraordinary series of lapses, the initiative fell from them. Pausing to refuel and reform, the Allies unwittingly gave the German commanders a chance to extricate their beleagured 15th Army from the south bank of the Scheldt Estuary, and to regroup their shattered forces throughout the Netherlands. Worse still was the error of judgement which halted the advance short of the South Beveland causeway on the northern side of the estuary. Retention of this narrow link between Walcheren and the mainland permitted the Germans to retain a firm grip on both banks of the fifty-four-mile-long estuary and to maintain their stranglehold on the port of Antwerp at its eastern end.

It was a mistake for which the Allies were to pay dearly. Antwerp held the key to the successful development of Field-Marshal Montgomery's plans for the advance of his 21st Army Group into the Rhineland. Without the use of its extensive port facilities as an advanced base the Allied forces were completely dependent upon Mulberry and the smaller French ports, now far behind their forward positions. In the weeks that followed the ill-fated Arnhem operation, lines of communication became even more dangerously stretched and made even deeper inroads into scarce reserves of manpower, transport, and fuel.

To have advanced further in such circumstances would have been folly and by mid-October it was clearly vital that all other offensive operations must be shut down until such time as the Scheldt was cleared. For two weeks the 2nd Canadian Corps fought a savage battle to cross the Leopold Canal and secure the Breskens pocket facing Walcheren whilst Canadian and British units of 1st Corps successfully sealed off the South Beveland peninsula. By the end of the month the isthmus had been firmly occupied by the 2nd Canadian and 52nd (Lowland) Divisions, and the banks of the Scheldt cleared of enemy troops. Only the German garrison on Walcheren Island stood between Antwerp and the open sea.



The history of Walcheren is bound up in its port of Vlissingen — better known as Flushing. The Gevangentoren, or prison tower, *(above)* dates from the Middle ages. Formerly joined to it on the right but demolished after the war, were the so-called 'bomb-proof barracks' — one of the many German strongpoints in the town. This flak position *(top)* situated on the sea dyke alongside was another (Pictorial Press).

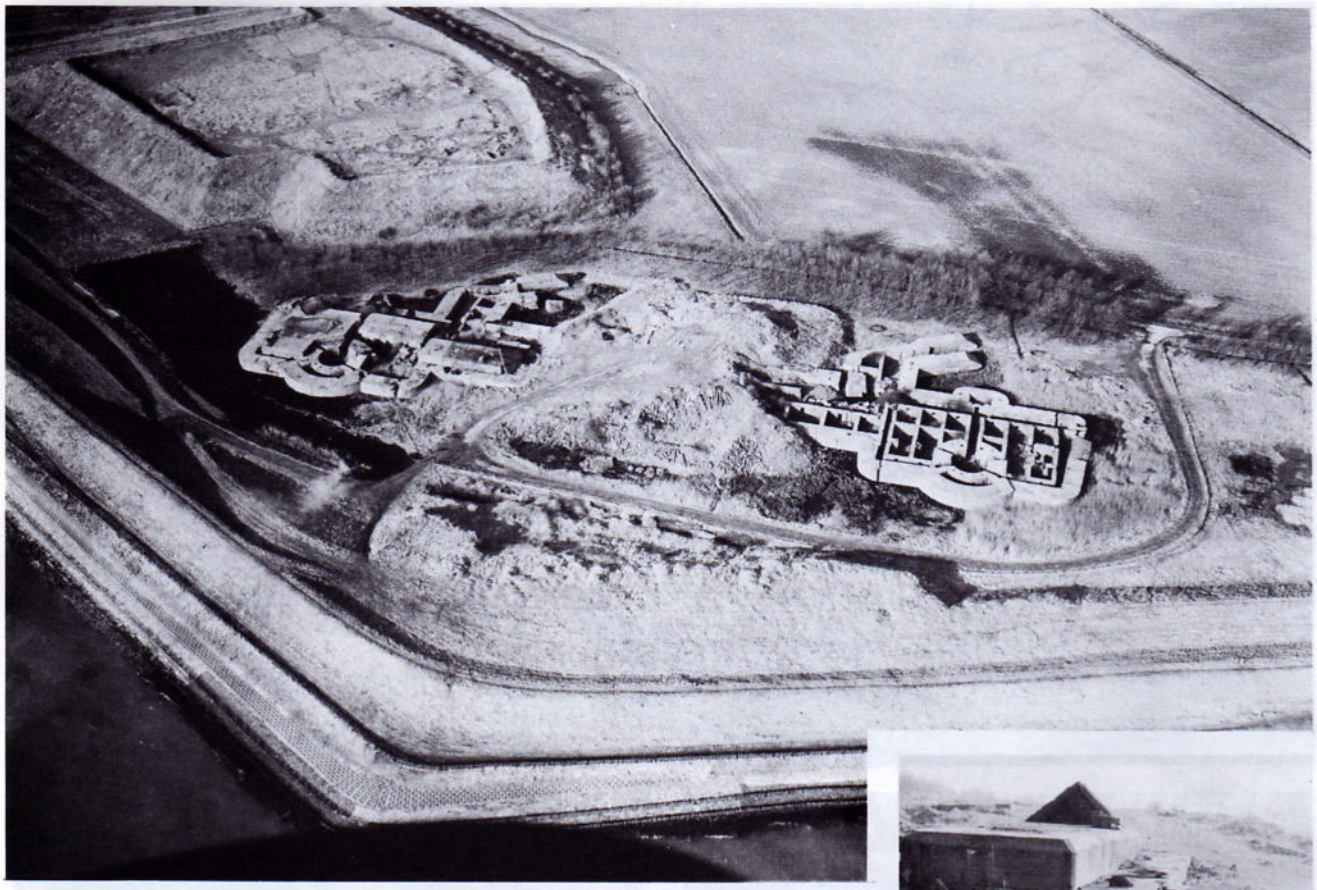
Walcheren

Above: German anti-invasion defences on the beach below Boulevard Bankert — picture taken looking across the Scheldt estuary to Breskens (Pictorial Press). *Below:* The sea wall underwent a complete transformation in 1981.

Walcheren was a formidable obstacle. Lying on the northern edge of the estuary, and measuring approximately nine miles in each direction, the island resembles a diamond-shaped saucer with a rim formed from a protective bank of sand-dunes varying between thirty and a hundred-odd feet in height, and a system of artificial dyke walls, which together protect the flat central area from the sea. The principal towns are Middelburg, lying below sea-level at the centre of the island; Vlissingen, more popularly known as Flushing, a substantial holiday resort and shipyard town at the southern tip, and Westkapelle jutting out into the North Sea at the western extremity.

The German fixed defences on Walcheren were amongst the most formidable in the world. Eighteen major batteries, each consisting of between four and six guns, housed in permanent reinforced concrete bunkers,

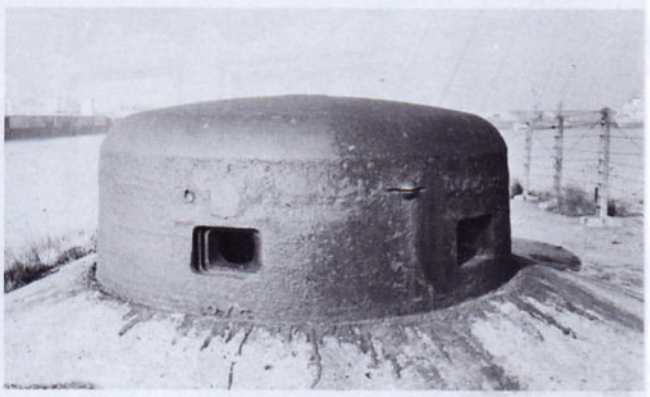
Batteries manned by the 202nd Naval Artillery Battalion lined Walcheren's western coastline. The main armament comprised 4/202 (codenamed W19 by the Allied forces) consisting of five ex-British 3.7-inch; 5/202 (W17) with four 220mm guns; 6/202 (W15), four 3.7-inch British AA guns and two captured 3-inch; 7/202 (W13) mounting four 150mm guns; 8/202 (W11) with four 150mm guns and 9/202 (W7) with four 150mm guns. (See map page 15 for locations.) *Left:* **These are the shattered 3.7-inch casemates of W15 (Pictorial Press).** *Right:* **Today a golf course occupies the site of battery W17 in the dunes west of Domburg, the shell craters providing ready-made bunkers.**



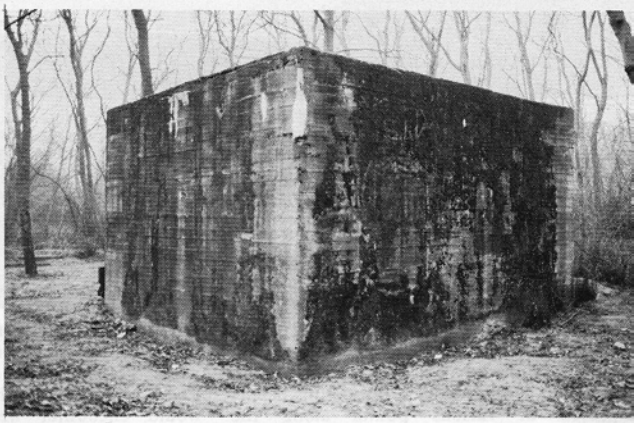
Above: **The old Dutch strongpoint of Fort de Ruijter lay conveniently sited on the eastern side of Flushing, designed to close the estuary. However, possibly because the raised sea dyke cut out direct sight of the sea, the Germans mounted battery W6 in front of it. The fort itself, with the addition of a thick reinforced-concrete roof was utilised for ammunition storage.** *Right:* **Today the fortress displays much evidence of the battle with parts of it completely blown asunder.**

afforded protection against an invasion from the west. Most were of the 105 or 150mm types, with a range of up to 30,000 yards, and could be expected to wreak havoc amongst any approaching invasion fleet, but there were a number of even heavier 220mm guns deeply emplaced at various points along the coastline. Closer inshore these would be supplemented by familiar 88mm, 50mm, and 47mm anti-tank guns, whilst many of the red-roofed farms in the island's interior had been transformed into strongpoints complete with cement gun-platforms, and log-built machine gun and mortar positions each covered an exit from a possible landing place.

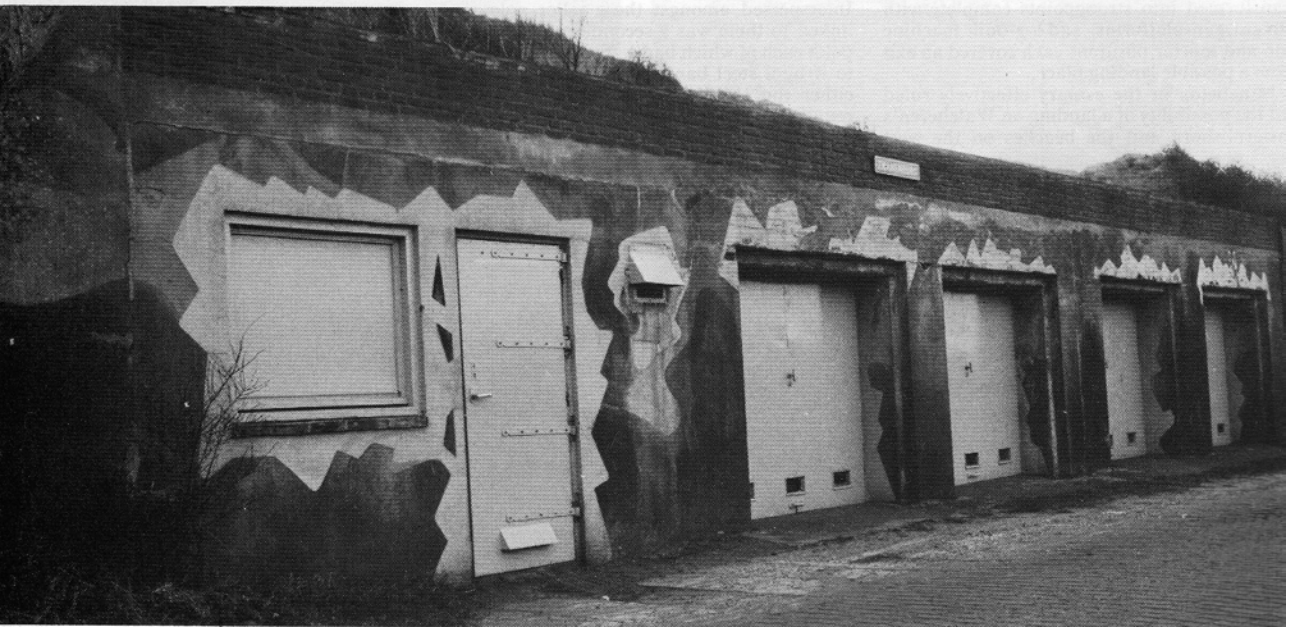
Minefields in the estuary effectively ruled out the possibility of a landing on Walcheren's eastern shore and the beaches on the west were daunting by any standards. Off-shore shoals made beaching a hazardous business at the best of times but it was the defence works, skilfully built by German engineers, that made the prospect of any assault a grim one. The first obstacles that the landing parties would encounter were 10ft poles hidden beneath the waves at high water, approximately one in three of which had an HE shell fitted to it in such a way that it would explode on impact with a landing craft. Interspersed amongst these taller poles and linked to them was a secondary system of 3ft poles each of which had a 75mm shell fastened to it by a steel band. Since a slight push on either the 10ft or 3ft pole was all that was required to detonate the round, the system — despite its tendency to explode under the



A few hundred yards to the west lies the sole coastal casemate to have survived post-war clear-up operations on Walcheren. Its preservation is probably due to it being sited within the perimeter of the Marine Kazerne — the Dutch Naval Barracks — although the machine gun mounting, formerly to be seen inside in the associated Sechsschartenturm, vanished only recently.



Top: **The defence line behind the dunes. These dragon's teeth are at Klein-Valkenisse. Nearby, personnel shelters** *(above left)* **and camouflaged bunkers** *(above right)* **still remain although the painted windows on the latter have faded.** *Below:* **Old Germa and modern Dutch masters at work on the camouflage concealin a bunker at battery W7 — now a Dutch military installation.**

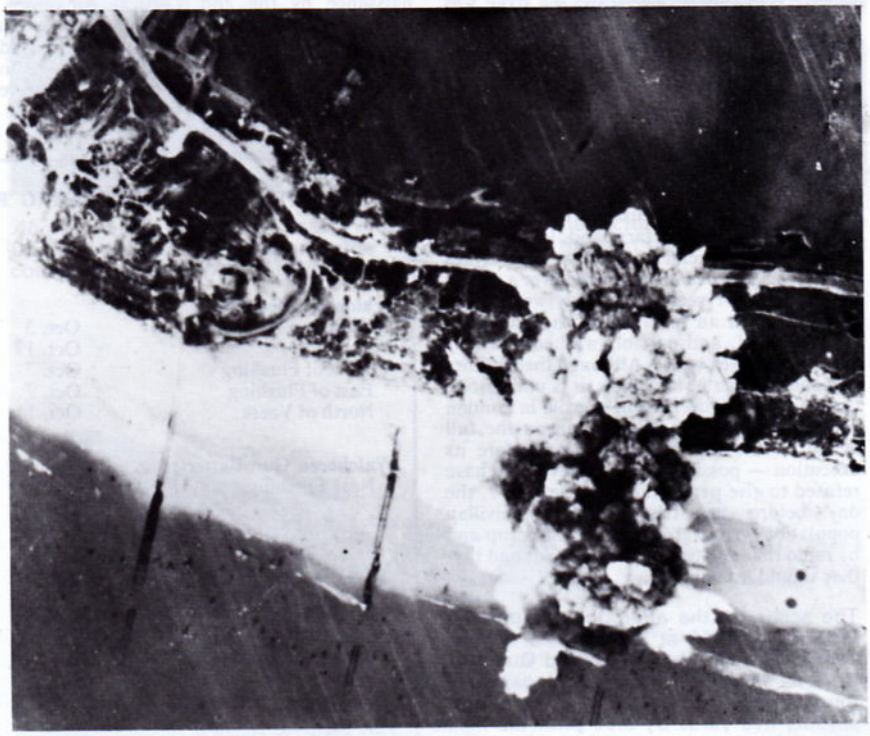


normal action of tide and waves — could be expected to pose serious problems for any assault force. There were other trigger-operated devices too, exploding shells of up to 10in calibre and, to make matters even more complicated, there were Element C obstacles (gate-like steel structures 10ft wide and 7ft high held upright by diagonal struts at their rear) to which lethal Teller mines could be fixed.

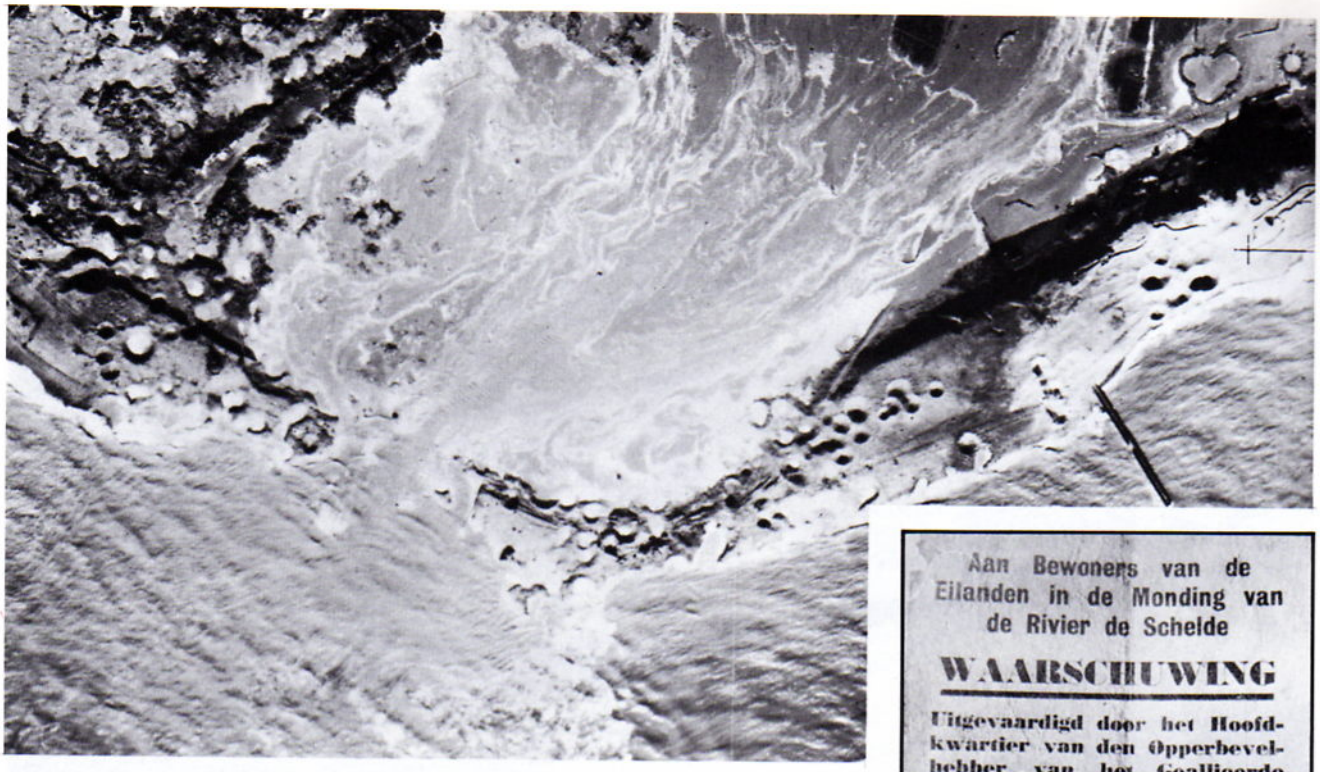
There were minefields in front of each company position, at irregular intervals along the line of the dyke, and concealed amongst the sand-dunes where their detection was extremely difficult. Many of the mines used had been captured from the French in 1940, but the German engineers had made extensive use of their own Schumine anti-personnel and Holzmine anti-tank devices, both of which were of non-magnetic construction. In the best German tradition, booby-traps figured prominently amongst the defences, and were affixed to many of the stakes supporting the barbed wire behind the beaches.

The 10,000-strong German garrison had an assortment of shorter range weapons at their disposal. In addition to their coastal and field artillery, the 89th Fortress Defence Regiment and the 70th Infantry Division had no fewer than 353 flame throwers, of which 220 were concentrated in the Domburg-Westkapelle-Zoutland triangle, three batteries of rocket projectors, and a number of 'Goliath' remotely-controlled demolition vehicles. Anti-aircraft defences, controlled by five Luftwaffe-manned radar stations included the weapons of the 810th Naval Flak Battalion and some captured British 3.7-inch guns in addition to the numerous 88mm and 50mm weapons deployed around the island. Finally, the Kriegsmarine was represented by a flotilla of eighty-five minor warships mostly based at Flushing, including fifteen 'E', and ten 'R' Boats.

Above: **The masts of a NATO air force radar station now stand on the bunkers of the former German battery 8/202 which once mounted four 150mm guns. The Allied codenumber, as per those allotted by No. 84 Group, RAF, was W11.**



The softening up process begins. Officially captioned as 'Bomb bursts in the target area during an attack on October 30, 1944 by RAF bomb-carrying Spitfires of a Polish wing on German light AA gun positions a few miles north-west of Flushing', consultation with a 1:25,000 survey pinpoints the position about three kilometers along the coast between Vlissingen and Dishoek (IWM).



The Allied Plan

The Allies had in fact begun their operations against the Walcheren defences in early October, shortly before Montgomery called for his all-out effort to re-open the Scheldt. The cornerstone of the Allied plan was to attempt to breach the outer sand-dunes and so let the sea pour into the interior and flood the German defences lying below sea level. The first section chosen to be attacked was at Westkapelle where the sea dyke was some 200 feet wide at its base narrowing to sixty feet at the top. Bomber Command appreciated the difficulty of making a breach in sand and planned the attack in two phases. If the first aircraft, using 1,000lb and 4,000lb bombs, failed to break the dyke then No. 617 Squadron would be ordered in fifteen minutes later to try to do the job with their 12,000lb 'Tallboys'.

The long-term repercussions of flooding an extensive area of good farmland, let alone the towns, was extremely serious. The dykes themselves had been constructed over a period of hundreds of years; now they were to be demolished in an instant and the reclaimed land polluted, and possibly washed away, by the inrush of sea water. Although the territory belonged to one of the Allies, it is understood that the Dutch government in exile in London was not given prior information on the full extent of the bombing operation before its execution — possibly because they would have refused to give permission. On October 2, the day before the first raid, the civilian population were warned by a leaflet drop and by radio that an attack was imminent and that they should take shelter.

The scene on the afternoon of Tuesday, October 3, 1944 at Westkapelle (IWM). *Above:* The Bomber Command Quarterly Review states that the initial gap was thirty-five yards wide, increasing to seventy-five yards by 3.00 p.m. the next day. Other reports state that the breach measured 125 metres. In spite of a leaflet drop 125 islanders were killed at Westkapelle, forty-seven in a mill at Theune which collapsed on the people sheltering inside.

On the morning of October 3, 259 aircraft from Nos. 1, 3, 5 and 8 (Pathfinder) Groups began taking off from their bases in England. Twelve aircraft aborted so that 247 actually went into the massed attack in eight waves of thirty aircraft. The bombing began at 12.54 p.m. and the 1269.6 tons of bombs dropped succeeded in breaching the dyke first time. Aircraft of No. 617 Squadron were therefore not required and were recalled to base. By 3.00 p.m. observers saw the sea pouring inland through a 35-yard gap and these reports were later confirmed by reconnaissance by the 2nd Tactical Air Force. Although the bombers, mainly Lancasters with some Mosquitos, had experienced moderate flak from Flushing (eight miles to the south-east) the Luftwaffe did not interfere with the raid.

Aan Bewoners van de Eilanden in de Monding van de Rivier de Schelde

WAARSCHUWING

Uitgevaardigd door het Hoofdkwartier van den Opperbevelhebber van het Geallieerde Expeditieleger.

1) Het is zeer waarschijnlijk, dat de vijandelijke troepen en installaties op uwe eilanden binnenkort aan een hevig en langdurig luchtbombardement zullen blootstaan.

2) Het is de vurigste wensch van het geallieerde oppercommando dat de burgerbevolking zal worden gespaard voor de gevolgen van deze noodzakelijke militaire actie voorzoover dit eenigszins mogelijk zal zijn.

3) Niet alleen een luchtbombardement maar het gevaar van overstrooming bedreigt evenzeer uw leven en dat van uwe families.

4) Vertaat de eilanden of indien dat niet mogelijk is, verhuist dan ONMIDDELLIJK met uwe families naar een veilige plaats op de eilanden.

Alle militaire doelen — wegen, kanalen, transportlijnen, krachtstations, spoorwegemplacementen of loodsen, opslagplaatsen en depots, vijandelijke concentraties van allerlei soorten zijn de middelpunten van gevaarzones en gaat ONMIDDELLIJK uit de nabijheid daarvan.

5) Reist uitsluitend te voet en neemt niets met U mee, dat U niet gemakkelijk kunt dragen. Houdt U verwijderd van de groote verkeerswegen en begeeft U uitsluitend door velden. Reist niet in groote groepen, welke ten onrechte kunnen worden aangezien voor vijandelijke formaties. Houdt U verwijderd van-laagliggend grondgebied en van militaire doelen totdat de vijand van uwe eilanden is verdreven.

PREPARATORY BOMBING FOR OPERATION INFATUATE

Target	Date	Aircraft *Despatched*	*Attacked*	*Missing*	Dropped (Tons)
Walcheren Sea Wall					
Westkapelle	Oct. 3	259	247	—	1,270
	Oct. 17	49	49	—	290
West of Flushing	Oct. 7	59	58	—	348
East of Flushing	Oct. 7	64	64	—	384
North of Veere	Oct. 11	63	62	—	374
		494	480	Nil	2,666
Walcheren Gun Batteries					
Near Flushing	Oct. 11	115	105	—	600
	Oct. 21	75	75	1	460
	Oct. 23	112	92	4	563
	Oct. 28	50	49	1	267
Westkapelle	Oct. 28	76	71	1	309
Oostkapelle	Oct. 28	39	38	—	161
Domberg	Oct. 28	75	68	—	285
Dishoek	Oct. 28	37	35	—	167
Domberg, Zouteland, etc.	Oct. 29	358	327	1	1,598
	Oct. 30	110	96	1	562
		1,047	956	9	4,972
Fort Frederik Hendrik					
Gun batteries (near Breskens)	Oct. 11	180	88	1	507
	Oct. 12	96	92	—	542
		276	180	1	1,049
Grand Total		1,817	1,616	10	8,687

The breach at Westkapelle had a tidal effect in as much that at high tide houses were flooded to a depth of about two feet while at low tide the water receeded. Although aerial reconnaissance showed the overall inundation spreading towards the centre of Walcheren with sixteen square miles under water, two further attacks were laid on for October 7 and 11 to try to let the sea in from the south and north-eastern sides. On the 7th the dyke east of Flushing was bombed by sixty-four Lancasters and Mosquitos from No. 5 Group. The 383.9 tons of bombs dropped opened up another gap, (locally known as the Sloegap) and a similar breach was created on the west side of Flushing (the Nollegap) by a further fifty-eight aircraft of the same group dropping 348.2 tons of bombs.

Four days later the dyke at Veere on the north-western coast facing North Beveland was bombed by sixty-two aircraft from No. 5 Group and the 374.1 tons of explosives created a fourth opening in Walcheren's sea defences which virtually completed the flooding of the low-lying parts of the island. Then, on the night of October 16/17, the Westkapelle gap was treated to a further 289.7 tons of bombs, again dropped by No. 5 Group using forty-nine Lancasters and Mosquitos.

An overall air offensive was maintained throughout the month *(see table)*, weakening the defenders' morale and doing much to blast a safer passage through the defences on the beaches on either side of the gap at Westkapelle. The bombers were joined by the guns of 2nd Canadian Corps' artillery, as Breskens was liberated, and Walcheren came within their range.

Meanwhile, at their headquarters in Ghent and Bruges, the Allied planners got down to the business of putting their plan together for the amphibious assault of the island. Nobody was surprised when a number of daring reconnaissances carried out by MTB and small boat parties confirmed their suspicions that the chances of approaching the gap in the shattered sea defences unnoticed were negligible. The attack at Westkapelle would have to be a frontal one with an assault wave of Commandos, relying on substantial aerial and naval bombardment, specialist naval obstacle clearance teams, and assault engineers to dig a toe-hold for them. In the event they decided that the main assault would take place virtually through the gap by the Royal Marine Commandos of the 4th Special Service Brigade under Brigadier B. W. Leicester, DSO, RM. It would be preceded by a landing across the only beach at Flushing from which there was a reasonable exit — narrow and unsuitable as it was — by No. 4 Army Commando. No. 155 Infantry Brigade would follow the Commandos ashore at Flushing and, if all went according to plan, two complete brigades plus some armour and artillery would be ashore on Walcheren within hours of the initial assault. With the need for Antwerp becoming more urgent each day, OPERATION INFATUATE could be delayed no longer and D-Day was fixed for November 1.

Notwithstanding frequent changes in plan, a staggering amount of work was completed in a very short time as the units involved in the complex operation came together at Ostend during the last days of October. It was a combined operation in the fullest sense of the word, and many old ties were renewed as units that had not worked together since the Normandy landings assembled for INFATUATE. For INFATUATE I — the assault on Flushing — No. 4 Commando were to cross the estuary from Breskens under cover of darkness. With them in their LCAs would be men of the Naval Obstacle Clearance Unit, a platoon of Royal Engineers from 59 GHQ Troops Company, one section of pioneers (144 Pioneer Coy), a section from a Canadian medical unit and artillery observers as well as

The fearsome tidal effect of the gaps in the sea dyke is graphically illustrated by these shots. *Above:* **The full force of the sea pours inland at high tide eroding the dyke and increasing the width to several hundred yards (Pictorial Press).**

Above: **At low water the breach virtually dried out. The picture was taken after the Commandos had landed through the Westkapelle gap, this part of the operation being codenamed INFATUATE II (IWM).**

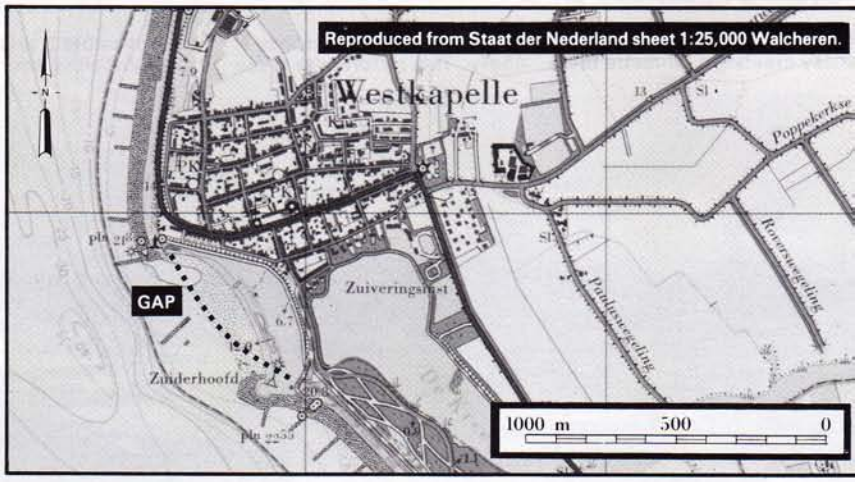
Today a recognisable section of the German anti-tank wall still remains.

On November 7, Cecil Phillips of the New York Times flew low round Walcheren sending back to his American readers dramatic ictures of the flooding. *Above:* Looking north-west, with Vestkapelle lighthouse tower almost surrounded by water. The breach is partially hidden by the line of dunes in the foreground *Below:* We took our photo from a higher altitude looking north east to illustrate the width of the break. A bay has resulte from sealing the breach, the gap being plugged further inland.

Above: **Many houses were swept away and the townspeople had to live with the misery of the twice-daily flooding of their homes for months after the battle for Walcheren had ended (Pictorial Press). The dyke was repaired on a new line (see map) so that the rubble from the old wall still remains to be seen in front of i** *(above right). Bottom:* **The civilians who lost their lives in th great deluge now lie in this memorial garden constructed at th rear of the old tower.**

Dutch detachment from No. 10 (Inter-Allied) Commando. In INFATUATE II at the Westkapelle gap, Nos. 47, 48 and 41 Commando, plus their supporting troops, would come ashore from larger craft and would make extensive use of Studebaker M29 'Weasel', and 'Buffalo' tracked amphibians, the latter operated by 11th Royal Tank Regiment from offshore landing craft. Unlike their colleagues at Flushing, they would have the benefit of supporting armour. The 1st Lothian Horse were to provide two Sherman command tanks and ten Sherman CRAB mine-clearing flail tanks, whilst the Royal Engineers (87 Assault Regiment, 509/510 Field Companies would put eight Churchill AVREs (four with SBG bridges, and four with fascines) ashore.

As the military units came together under the command of the 2nd Canadian Corps and practised specialised tactics in the sand-dunes around Ostend, the ships of the Royal Navy's



The Nollegap, just west of Flushing, was blasted on October 7, initially creating a 50-metre break. *Above:* This picture was taken on November 3 and four days later Cecil Phillips took the phot *(below)* looking south-east towards Flushing (New York Times).

Reproduced from Staat der Nederland sheet 1:25,000 Walcheren.
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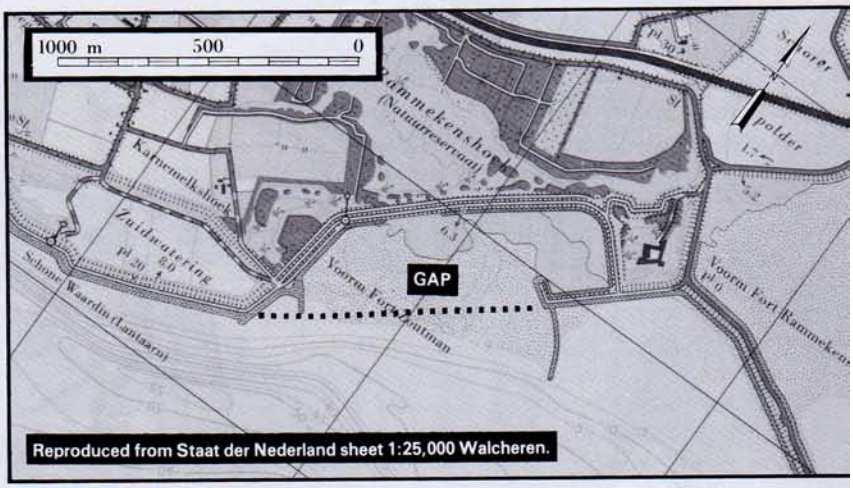
VLISSINGEN
GAP

Force 'T' began to assemble in the docks. By October 27, a total of 182 landing and support craft, together with their shore-based headquarters staff and many tons of essential stores and supplies, had arrived at Ostend in readiness for the Westkapelle operation. In the space of four hectic days the force, under the command of Captain A. F. Pugsley, DSO, RN, established its communication links, assimilated the plan, practised their role, and embarked the assault troops together with their tanks and amphibians.

The fleet was a strictly functional one. With the exception of the headquarters ship, the frigate HMS *Kingsmill*, it was composed entirely of the slab-sided landing craft which, despite their poor sea-going reputation, had performed so creditably on the Normandy beaches and in the subsequent ferry operations. In addition to the thirty-six LCTs which were to carry the tracked vehicles, and twenty-four large personnel landing craft, there was an assortment of minor types including water-carrying barges, oilers, workshop-craft, three LCTs converted for the hospital-ship role, and launches and survey craft.

The third breach was to the east of Flushing near Ritthem which we termed the Sloegap. As the RAF reconnaissance *(above)* shows, several breaks were made along a distance of some 300 metres. (Note the edge of Fort Rammekens on the right.) *Below:* The map indicates an eventual gap of nearly 1,000 metres.



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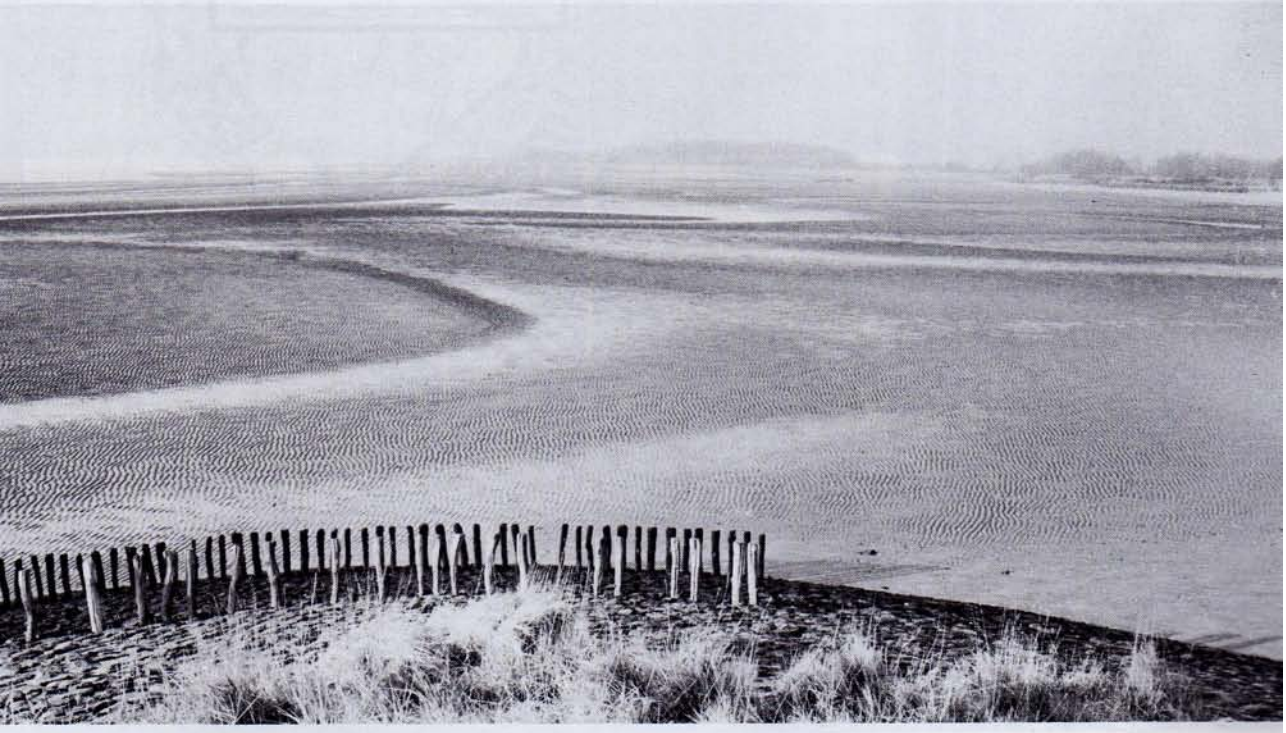
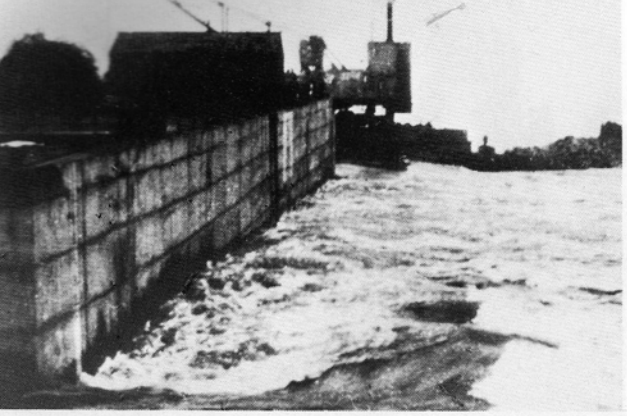
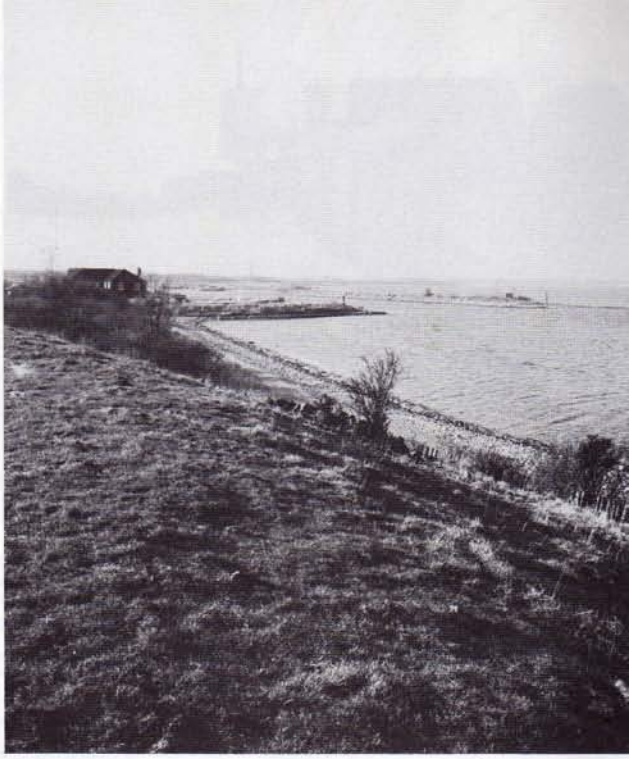


The huge bay created by the repair of the Sloegap is now a beautiful setting for a wildlife sanctuary.

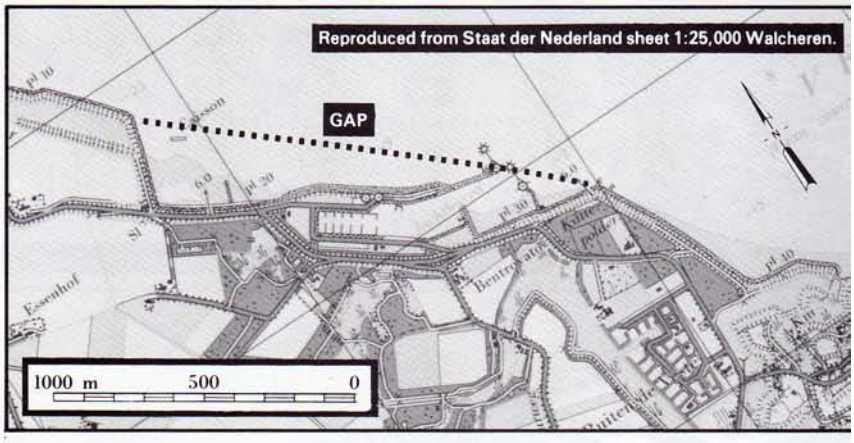


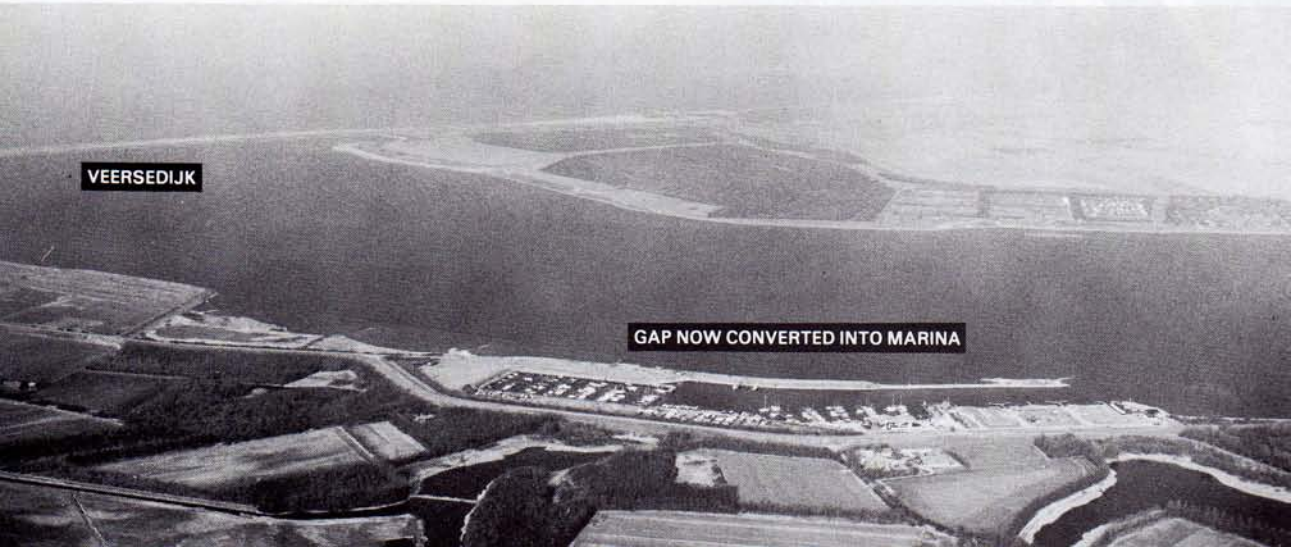
The Sloegap was the last gap to be sealed. *Above left:* Huge reinforced-concrete caissons had to be brought in and sunk to form a barrier. *Above right:* This one still remains, complete with mooring bollards. *Below:* High water completely covers the ba — quite a contrast to the ground-level scene opposite. A larg tract of flooded, marshy land still exists behind the new dyke.



Left and above: **The fourth gap, 400-metres wide, was blown i the north-eastern dyke facing North Beveland on October 11.**

Twenty-five of the converted craft belonged to the Support Squadron Eastern Flank commanded by Captain K. A. Sellar, DSC, RN. These veterans of the Normandy beaches were Force 'T's teeth, and their Royal Marine gun crews had the task of providing supporting fire for the assault craft as they approached the shoreline and for the Commandos once they had disembarked. To support the Westkapelle landing, Captain Sellar had available to him five LCT(R) tank landing craft converted to a 'saturation' rocket-firing role, six LCF anti-aircraft ships, and six smaller craft equipped with guns and smoke mortars. Lastly, he had nine clumsy LCGs, the least seaworthy of the improvised types, mounting either 4.7-inch or 17-pdr guns in 5-inch armoured turrets. Their role in the operation of November 1 was to be an heroic one.



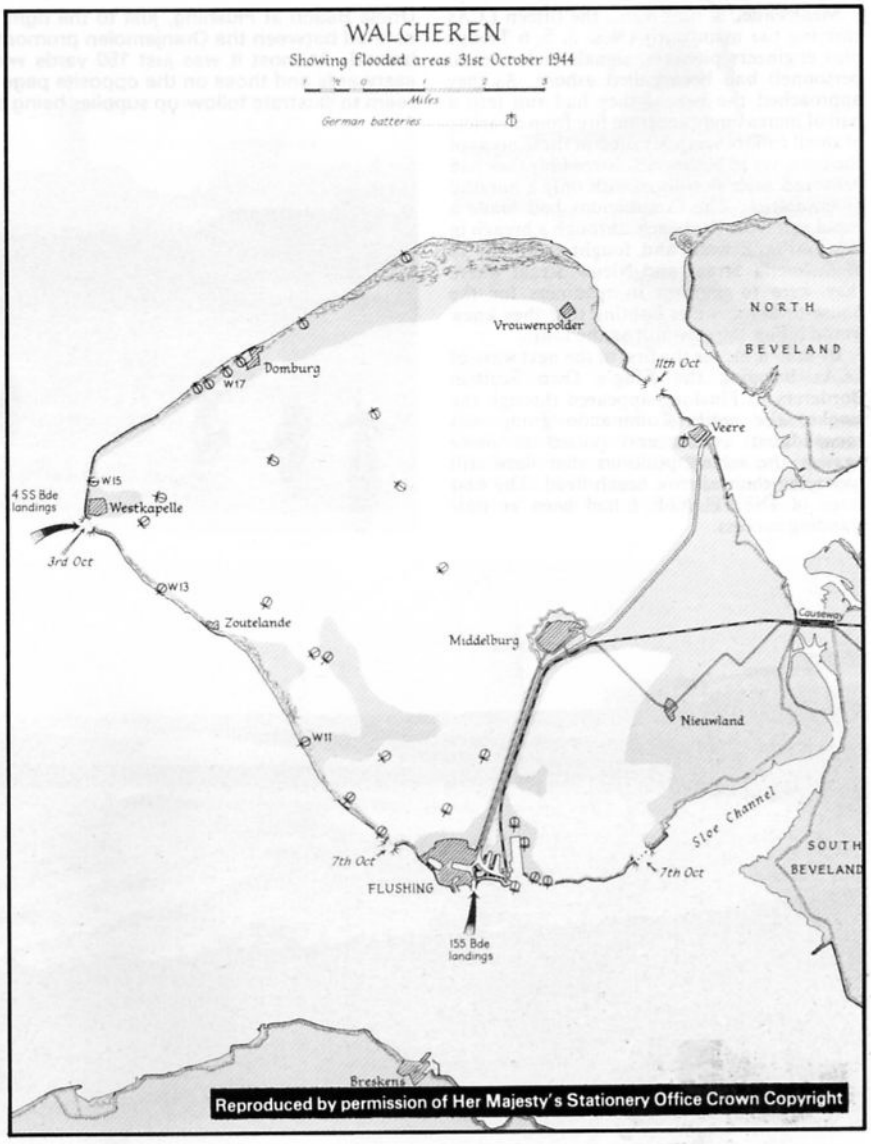


Infatuate I

At 3.15 a.m. on November 1, the 550 men of No. 4 Commando Group began to file aboard their landing craft at Breskens. They did so with some slight misgiving. The persistent low cloud and drizzle that had blanketed the estuary for the past twenty-four hours had spread across the North Sea into East Anglia and had grounded their promised bomber support. Furthermore, on the previous afternoon, their preparations had attracted the attentions of the German gunners at Walcheren's Battery W6, and it seemed likely that their attack might now have lost its vital element of surprise.

Yet when at 5.45 a.m. the first flight of landing craft beached on Uncle Beach and, inadvertedly, on the adjacent Oranjemolen (Orange Mill) promontory, they met with immediate success against a disorganised enemy, still reeling under the effects of an hour's concentrated bombardment by fifteen regiments of artillery. As the men of the obstacle clearance unit began to dismantle the steel defence works that still obstructed the approach to the beach, the reconnaissance party fought their way to the harbour entrance. There Captain Rewcastle and his small force overran an underground 75mm gun emplacement that threatened the approaching second flight and took twenty prisoners, before regrouping in nearby Oranje Straat where they established a position protecting the exit from the beach-head.

A few minutes later, No. 2 Troop disembarked from the second flight of LCAs without casualties and stormed onto the waterfront where a section commanded by Lieutenant Hunter Gray made a successful attack on a 50mm gun position. The Commandos quickly put the captured weapon to good use and, leaving a scratch party to provide them with covering fire, they worked their way eastwards along the promontory in a series of assaults on each of the pillboxes that stood in their way. At the same time a second section (Lieutenant F. J. Albrow, RM) made similar exceptional progress on the left flank clearing the way for an advance along Piet Hein Straat.



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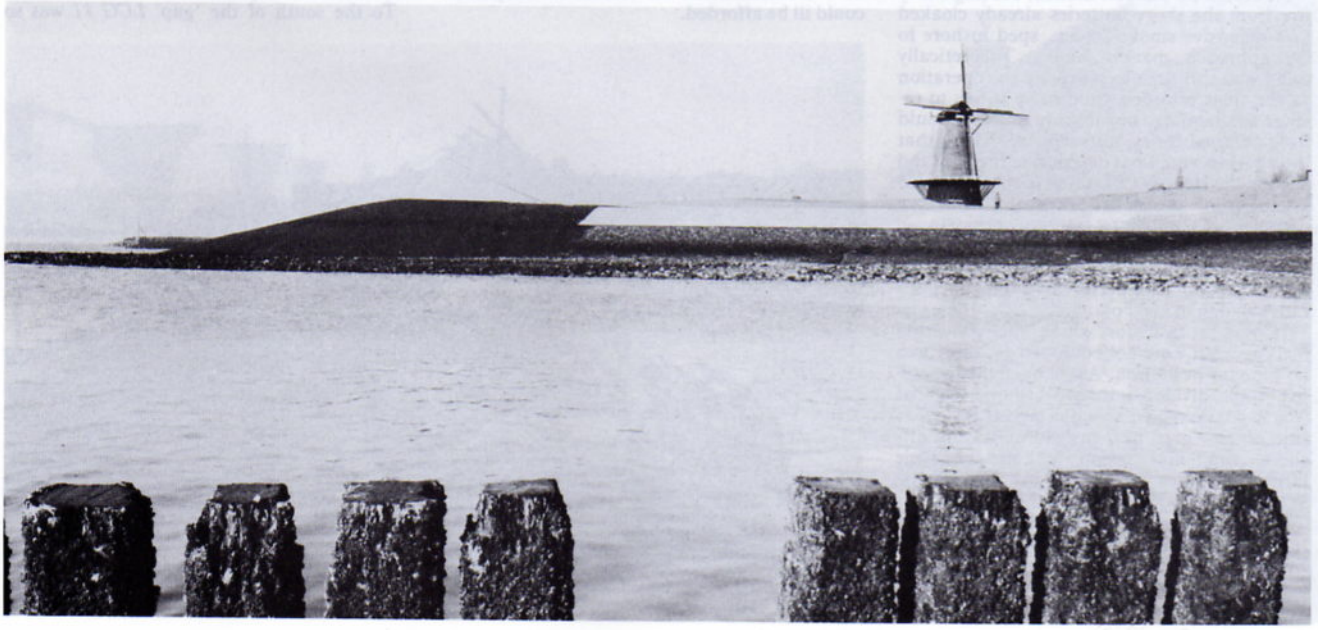
Meanwhile, at 6.30 a.m., the fifteen LCAs carrying the main party (Nos. 3, 5, 6 Troops plus engineers pioneers, signals and medical personnel) had been called ashore. As they approached the beach, they had run into a hail of increasingly accurate fire from a variety of small calibre weapons sited in those areas of the town yet to be cleared. Incredibly they had delivered their personnel with only a handful of casualties. The Commandos had made a rapid exit from the beach, through a breach in the anti-tank wall, and fought their way to Wilhelmena Straat and Nieuw Straat where they were to regroup in readiness for the house-to-house street fighting that they knew would follow their assault on the town.

By 8.30 a.m., as the first of the next wave of LCAs bringing the King's Own Scottish Borderers to Flushing appeared through the smoke, the entire Commando group was consolidated ashore and poised to move against the inland positions that were still menacing their narrow beach-head. The first stage of INFATUATE I had been an outstanding success.

Uncle Beach at Flushing, just to the right of the western harbour entrance, was clear defined between the Oranjemolen promontory in the foreground and the breakwater pi behind. At most it was just 150 yards wide. These pictures illustrate the view lookin eastwards and those on the opposite page that looking west. Both these pictures wou seem to illustrate follow-up supplies being taken ashore (IWM).

Although these two photographs are credited to different press agencies with different dates (Associated Press *above*, November 6, and New York Times, November 4, *below*) it would be sensible to assume that Cecil Phillips took them both on the 4th. Supplies are arriving and the empty landing craft then take on board wounded.

Below: The small landing beach and Oranjemolen promontory have been drastically altered with the construction of new sea defences . . . burying the old German ones in the process *(above)*.



Infatuate II

Above: **LCT 952 disgorges her vehicles onto White Beach at Westkapelle (IWM).** *Below:* **Marines duck enemy fire as Weasels and Buffaloes hit the beach on the left of the gap. The sea wall on page 7 is visible in the background (IWM).**

Meanwhile things were not going well for Force 'T'. With the coming of daylight, the weather that had caused so much anxiety when the convoy set out on its six-hour crossing to Westkapelle seemed at first to be greatly improved. The assault was timed for 9.45 a.m. but, when at 7.15 a.m. the 15-inch guns of the bombarding squadron — the veteran battleship *Warspite*, and the monitors *Roberts* and *Erebus* — opened up against the shore batteries, they did so without their promised spotter aircraft.

Aboard *Kingsmill*, Captain Pugsley promptly signalled ashore to confirm that the offshore weather was suitable for air operations with a 2,500ft cloudbase and ten to fifteen miles visibility, but the reply that he received was discouraging: ashore conditions were worse and in England the bombers still waited on their rain-lashed airfields.

At 8.00 a.m. a motor launch, braving heavy fire from the shore batteries already cloaked in a defensive smoke screen, sped inshore to lay approach marker buoys. Theoretically there was still time to postpone the operation as the tides afforded six days in which to re-stage the landing, but to have done so would have entailed losing all surprise, risking that the weather would not deteriorate further, and leaving the troops at Flushing to the undivided attention of the entire garrison. Thus the decision was taken to let the operation go ahead without bomber support and, as a result, the Support Squadron would have to fight the shore batteries at a much closer range than had been planned.

It was a task for which the converted landing craft were not equipped yet there was no time for hesitation. As planned the twenty-five ships divided into two groups, each of which was assigned specific targets on either side of the 'gap' but, instead of staying off-shore, they now began to close on their targets. As they did so the big guns of the Westkapelle main fort joined the battle.

The artillery duel was building up to a savage intensity. The Canadian gunners at Breskens joined with the bombarding squadron in engaging Batteries W13 and W15, but the enormous tonnage of high-explosive falling around them scarcely affected the German gun-crews deep in the reinforced concrete blockhouses. Still the shells rained down on the squadron as it passed through the 3,500-yard mark at which the LCGs' 4.7-inch guns, and the 29lb warhead rockets aboard the LCT(R)s were at their most effective. When at 9.45 a.m. the order was given to close to point-blank range there was just one consolation for the crews — the fact that the German gunners were firing mainly armour-piercing shells. Had they at any time switched to a higher proportion of HE shells the chances of reaching the beach would have been negligible. Then fate struck a cruel blow. One of the LCT(R)'s 33-rocket salvoes fell far short of its target and straddled four ships, wounding thirty-three marine gunners and temporarily disabling *LCG2* (Lieutenant-Commander A. Cheyney, DSC) at a moment when the loss of its firepower could ill be afforded.

Now '88's and '105's began to batter the squadron mercilessly. The three LCG(L)s assigned targets to the north of the 'gap' fought magnificently to close on them but each suffered crippling damage. *LCG 1* (Lieutenant A. H. Ballard) somehow managed to survive two direct hits and to get to within 600 yards of the shore before another forced her crew (of whom twenty-two had been injured) to abandon their stricken vessel. As *LCG 1* sank after an attempt to take her in tow, her sister ship *LCG 2* rejoined the fray and fought her way to within 500 yards of the enemy positions before she too was put out of action by a direct hit in the engine room and had to be towed to safety. Undaunted, the Marines made one final effort to engage the '88's but the tow was abandoned and the craft drifted into a minefield, hit two mines and sank. *LCG 17* too suffered grievous damage and was forced to pull out.

To the south of the 'gap' *LCG 11* was so

severely damaged that it could play only a limited part in the operation but *LCG 10*, after taking a direct hit from a 6-inch shell, formed two scratch gun-crews from her uninjured and, after a twenty minute break, rejoined the battle. In the next 2¾ hours her guns fired half as much ammunition again as they had during their first six days off the Normandy beaches.

The LCG(M)s with their 17-pdr guns had been assigned the H-Hour task of beaching alongside pillboxes on either side of the gap. That they did so and engaged in an unsupported close-range duel with enemy 105mm and 150mm guns was an outstanding achievement that fully occupied the defenders at a time when they might otherwise have been concentrating on the approaching flights of landing craft. In the event, *LCG(M) 102* on the south side fought valiantly before being set alight; there were no survivors from her complement of thirty-one officers and men.

On the north of the gap, *LCG(M) 101* beached only thirty yards from her objective and sustained heavy damage during the ensuing half-hour-long fight. When at the end of that time her 17-pdrs finally ceased firing her exhausted crew somehow managed to get the battered craft back to sea only to see her sink stern down a few minutes later. Whilst beached, every one of her shots had found their target.

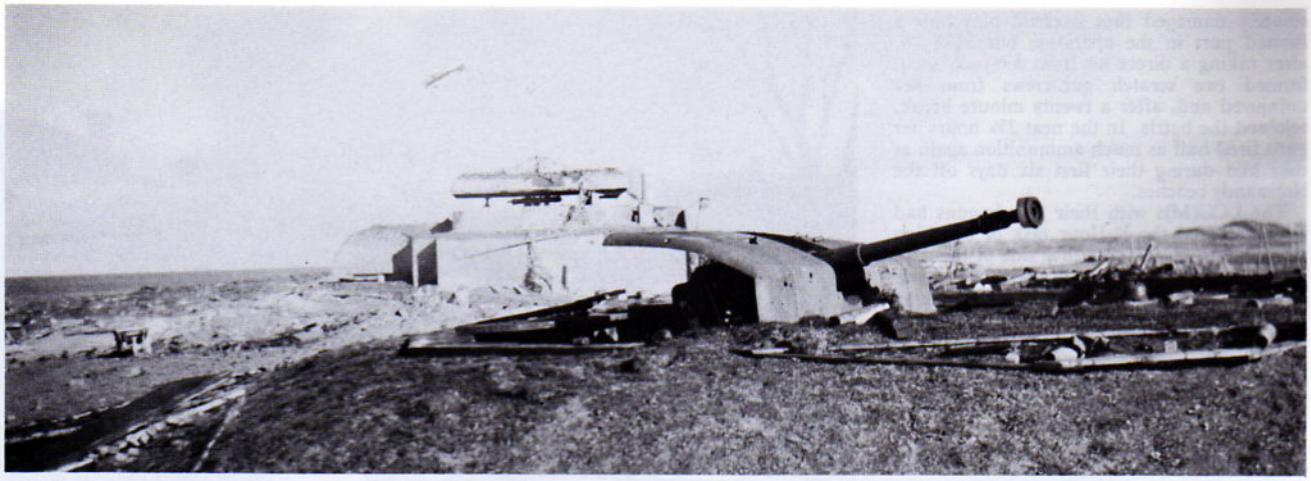
Three LCS(L)s had accompanied the assault troops to the southern beach following orders that were later officially described as 'suicidal'. All three managed to beach and to engage strongpoints with their 6-pdr and 20mm armaments, but their fight was only short-lived. All three burned with the loss of fifty-five officers and men but, during the few brief minutes that they had been in action, the assault parties of No. 48 Commando had been able to take advantage of the diversion to get clear of the bullet-swept beach.

The beach-head was a tenuous one. Now, as the LCTs carrying the amphibians ran towards the shore, it was the turn of the LCFs with their multiple 2-pdr pom-poms and 20mm Oerlikons to close on the enemy.

First to suffer was *LCF 37* (Lieutenant-Commander G. L. Carlton) which, after hasty repairs to earlier damage, took a direct hit in the magazine. Forty men died as 100,000 rounds of ammunition exploded, and the handful of survivors thrown into the sea had to endure repeated machine-gunning before rescue ships could reach them. *LCF 38* too went down after fire spread to a magazine but not before the crew had been taken off by a sister-ship.

The fate of the operation hung in the balance. The remaining battleworthy flak and rocket ships were ordered to form line astern and proceed 1,000 yards offshore at a steady six knots towards Westkapelle lighthouse, raking the beach with well-directed fire as they did so. It was a timely ruse that drew fire away from the waves of assault craft. As the support ships ran the gauntlet, their water-cooled pom-poms steaming and mortar bombs and shells falling about them, a new noise was heard above the din. The rocket-firing Typhoons had at last been able to get airborne and the salvoes from the first of four hundred such sorties that were to be flown that day literally turned the course of the battle. As the pilots sought out targets, the Commandos made rapid headway inland and the remnants of the battered squadron were ordered to disengage. Ten of its twenty-five ships had been lost and six damaged beyond repair; 172 officers and men had lost their lives and a further 200 wounded. The task set them had been far beyond their capability yet they had not failed.

In December 1980, Dr. L. de Jong revealed in the official Dutch history of WWII that his research had established that no advance warning was given to the Dutch government in exile of the proposed inundations — only that a bombardment was planned at Westkapelle. Although the bombing of the dykes had had the desired effect of flooding out many of the German defences inland, this picture taken in Oostkapelle gives a good idea of what the civilians had to suffer for the liberation of their country (Pictorial Press).



Ashore at Westkapelle

Situated a kilometre northward on top of the Westkapelle sea dyke, Batterie 6/202 (W15) was captured by 'Y' Troop supported by 'P' of 41 Commando after a 30-minute battle (IWM).

The first Marines of Nos. 41 and 48 Commandos had landed simultaneously at about 10.15 a.m. with No. 41 (Lieutenant-Colonel E. C. E. Palmer, RM) on the north of the 'gap' setting out quickly for Westkapelle village. Supported by a Sherman CRAB of the 1st Lothians which silenced a German position in the Westkapelle lighthouse, they took the village within an hour of coming ashore. By 12.30 p.m., with support from *Warspite* and RAF Typhoons, they had succeeded in clearing the enemy from Battery W15 and were already pressing on towards a number of positions around the lighthouse which they eventually overran at 2.30 p.m. Now, well up on their schedule, they moved through the dunes at great speed, fighting their way from strongpoint to strongpoint so effectively that by nightfall the greater part of Domburg itself was in their hands.

On the south side of the lodgement, No. 48 Commando too made good initial progress in a running fight against small but determined groups of defenders, until they reached Battery W13 where they encountered the first really stubborn resistance of the day. Originally the Commandos had counted on having support craft and tanks available to assist them at this difficult obstacle but with their own heavy weapons lost in the landing, the support squadron out of the fight and no tanks available, 'Y' Troop had to make an unsupported assault. So fierce was the resistance that the entire troop was either killed or wounded before they could reach their objective. After some well-directed fire from *Roberts* had failed to dislodge the defenders, the CO, Lieutenant-Colonel Moulton, returned to his Brigade HQ to personally organise some more substantial support. A further attack cost 'Z' Troop half its strength and it was not until 4.00 p.m., following a fifteen-minute bombardment from Breskens and a devastating air-strike, that 'B' Troop were able to overrun the battery.

No. 47 Commando had suffered badly whilst coming ashore, losing seventeen Weasels and all of their wireless equipment. To make matters worse, three of their craft had beached on the wrong side of the gap, and those bringing the ammunition and rations had been prevented from landing. Fortunately theirs was a reserve role, for it was 3.30 p.m. before the entire command had regrouped for its much delayed advance towards Flushing.

It had been a disastrous day for the supporting armour. Although the tanks that had reached the interior of the island had performed magnificently, there were too few of them. Inevitably there had been some losses before the LCTs reached the beach but, once ashore, the tank crews found that their thirty-ton vehicles bogged down far too readily in the soft clay. Four CRABS, a similar number of AVREs and an armoured bulldozer simply floundered on the beach and were unable to play any further part in the operation. By D+1 similar conditions in the flooded inland areas weakened the force even more, leaving only two AVREs and two overworked command Shermans operational.

Having taken 120 prisoners, the two troops were ordered to halt on reaching the lighthouse until it was confirmed that those advancing south from the landing area were well on their way to W13. At 3.00 p.m. the advance northward towards W17 at Domburg (see page 2) continued with 'P' Troop in the lead (IWM). Note that the guns are facing inland in these pictures taken by Sergeant Dangan.

Today the site of W15 has been completely obliterated but these metal stakes, constructed from railway lines embedded in the sea wall, still guard the approach.

A marvellous sequence of pictures taken by Sergeant Crocker depicting the advance of 'A' Troop under Captain Stevens east along the Zuidstraat towards the lighthouse used as a German

sent back to the beach. No. 47 on left. *Third row:* The advanc continues past Nos. 43 and 41. *Fourth row:* Returning to Nos. 59-6 Sergeant Crocker pictured officers Lieutenant Colon

Behind these pictures lies a story. It is the Spring of 1945, the ighting is long since over, yet high and low tides still affect Westkapelle. Although evacuated to Domburg, Adriana and Johanna Minderhout (no relation) decided to return to their nomes to recover some clothes. While doing so the tide came in rapping them. Fortunately their white cloth signal for help was spotted by British soldiers in the tower and they got Mijnheer Taarse to rescue them with his dinghy. When they reached dry and in Zuidstraat, a Pictorial Press photographer was on hand and he snapped the shot *above left.* Johanna had lost the elastic to her stocking and it was definitely taboo to be seen photographed showing a leg whilst wearing the traditional Dutc Klederdracht (which differs for each town and religion). Th photographer therefore took the second, posed, picture. Whe we visited Westkapelle in February 1982 we were successful tracing both ladies, now Mevrouw de Kam and Mevrouw d Hoop, still both living in the town, and they sportingly agreed pose once again on the same spot. Johanna de Hoop gave u wearing the Klederdracht in her twenties — it is now only worn the main by older people.

Flushing

Sergeant Stiggins took these pictures just beside the Oranjemolen at Flushing looking inland towards the Schelde shipyard (IWM). *Below:* **The reconstruction of the dyke in 1981 was severely hampered by the discovery of much unexploded ordnance.**

Whilst the Marines had been fighting their way inland from Westkapelle, No. 4 Commando had been making good headway in Flushing. Their primary objective had been the enemy positions dominating the beach, its exits, and the adjoining docks and promontories. Thus No. 2 Troop quickly sealed off the Oranjemolen area, and No. 6, guided by Captain P. H. van Nahuys (until a few weeks previously a police officer in the town), soon reached the key area to the west of the shipyard codenamed BEXHILL. They met with only sporadic resistance but the rest of the Commando were less fortunate. The arsenal fell to No. 1 Troop after a brief fight, but Nos. 3 and 5 ran into difficulties at a bomb-proof barracks on the sea front, the adjacent naval barracks, and at the harbour entrance. No. 5 were soon relieved by elements of the incoming 155 Brigade and spent the remainder of the day in a vicious battle with a 20mm flak position, moving at nightfall to join Nos. 1 and 3 Troops who had battled their way to Spuikom and Coosje Busken Straats only to be held up by spirited resistance from a number of strongpoints. During the day Spitfires and Typhoons of No. 83 Group flew a total of 152 sorties against targets in Flushing, and by 10.00 p.m., when Brigadier McLaren issued his orders for the final clearance operations on the following day, about half the town was firmly in Allied hands.

At first light, whilst men of the 4th King's Own Scottish Borderers worked their way along Schelde and Van Dishoek Straats, the Regiment's 5th Battalion, together with a troop of Commandos and a machine gun detachment, began advancing inland along the line of the Walcheren Canal. Despite a bad setback when twelve of their men were injured by mis-directed artillery fire, the force made good progress towards its inland objectives. They were supported on occasions most effectively by 3.7-inch mountain howitzers — an improbable weapon for the flat terrain but the equipment of the Brigade's airportable artillery regiment which had fought a notable duel from the beach-head to dislodge machine guns from their positions in the high shipyard cranes.

The French Commandos of No. 5 Troop were at the centre of some of the fiercest fighting as they resumed the clearance of Coosje Busken Straat using a PIAT from roof-top vantage points to pin down enemy defenders as they advanced from house to house. The clearance of the harbour area and a barracks strongpoint proved particularly hard nuts to crack, even with the assistance of air-strikes, but late in the afternoon the sustained pressure finally paid off and enemy resistance in Flushing crumbled. It had taken forty hours of nearly continuous fighting to secure the town and only now could the Commandos and men of 155 Brigade afford to snatch a few hours' well earned rest.

Sergeant Stiggins followed the advancing troops. The whole area behind Uncle Beach and the Oranjemolen has been extensively redeveloped, with modern houses replacing those damaged and destroyed in 1944. Luckily the building on the corner of Sim Stevinstraat remains as a mutual point of reference giving us good 'then and now' comparison (IWM).

Above and bottom: A few yards down the street rubble from a bombed house provides cover. Without the preceding picture, this would have been impossible to pinpoint on its own (IWM).

Although the number sequence on Sergeant Stiggins's roll of film indicates that th picture *(above)* was taken next (and therefore in the close neighbourhood), we spen ages fruitlessly tramping the streets looking and asking for its location (IWM).

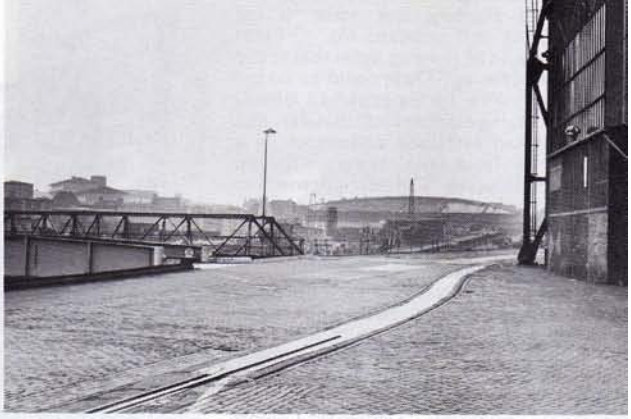
Flushing today reproduced with acknow-egement to NV Falkplan

Returning to England without having matched such a good action shot was galling bu then we were lucky to find the photograph *(above)* — one of those taken by Cecil Phillip of the New York Times after the battle for the town was over. The same building on th left appeared in both shots and the better coverage of the right-hand side gave our guide Wilco Vermeer, enough clues to pinpoint it as being the Gravestraat *(below)* taken fron the corner of Paardenstraat looking west. It looks easy now . . . but well done Wilco!

Another pair of Wilco specials. *Above:* Bellamy Park lies in the centre of the town (see map page 25) and these troops are running the gauntlet towards Beursstraat (Keystone). *Below:* Th corner building is a pub now renamed Flying Dutchman.

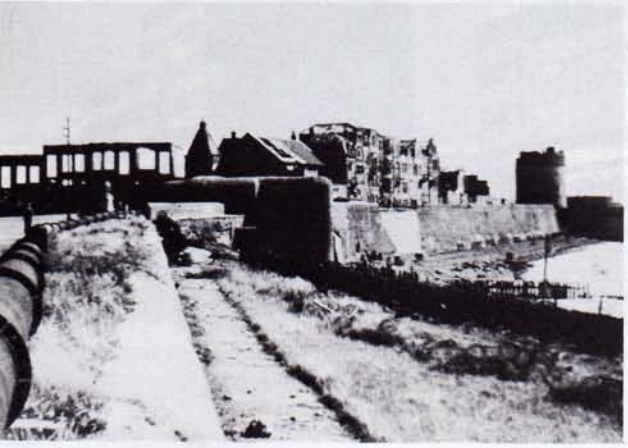
Above: This Associated Press picture seems to have the stamp of Cecil Phillips's work. Men of the KOSB are walking north on Molenstraat towards Coosje Buskenstraat with Bakkersgang on the right. *Below:* Drastically transformed.

What our American friends would caption as 'movin out'. Take by Sergeant Stiggins on November 4, men of No. 4 Command march out of Flushing along Coosje Buskenstraat (IWM).



The keel for a 23,000-ton liner for Rotterdamsche Lloyd was laid down in early 1939 but the vessel, known just as No. 214, was still uncompleted in November 1944. Lying against an inner quay of Het Dok, the Germans found it a convenient location for snipers during the battle. The ship was completed after the war and wa launched on July 1, 1946, named the Willem Ruys after th director of the company who had been shot in 1942 as a repris for a Dutch resistance attack (IWM).

Scenes in Flushing after the battle, researched from the tow archives by Wilco Vermeer. *Left and above:* The railway statio



Left and above: The view along Boulevard Bankert on the se front towards the Gevangentoren. Taken in front of Nos. 92-106.

Left and above: Looking in the opposite direction from the bunke

On D+1 the approaches to Battery W11 north-west of Flushing saw some of the fiercest fighting and occupied No. 47 Commando in a series of running fights that lasted until the late evening. There could be no by-passing the position for its guns had already sunk one incoming landing craft that day, and the gunners had remained undeterred by a bombardment from the heavy 7.2 gun howitzers at Breskens. The only approach to the battery was a difficult one through sand-hills, with all ammunition and stores having to be manhandled forward, and tank support out of the question. *Erebus* continued to provide supporting naval gunfire — the aged *Warspite* whose guns were at the end of their life having been withdrawn from action — but, despite her efforts, the Germans remained in their bunkers. No. 41 Commando and one troop of No. 48 were summoned to temporarily reinforce Lieutenant-Colonel Phillips's command, leaving Domburg and the enemy positions in the north of the island to the Dutch, Norwegian and Belgian members of No. 10 (Inter-Allied) Commando. At 9.00 a.m. on D+2, No. 47 made their assault on W11 almost simultaneously with one of the operation's heaviest concentrations of artillery fire. This time they overran the battery and fought their way without pause through Battery W3 and on to Flushing where they established a defensive position on the northern side of the breach in the dunes.

No. 41 Commando crossed to the northern side of the island early on D+3, and resumed their efforts to dislodge the last defenders from the northernmost batteries. By this time they had the assistance of No. 4 Commando who had worked their way up through Zouteland to join them, 'mopping-up' as they did so. No. 155 Brigade had the right flank firmly under control but one or two positions still refused to yield. As No. 10 Commando flushed the last defenders from amongst the mine-strewn dunes behind Domburg, the stubborn W18 finally capitulated on D+4 but, at the northern tip of the island, W19 resisted repeated attacks until late on D+6, when its defenders finally realised the hopelessness of their position. The previous day, from the east, No. 156 Brigade of the 52nd (Lowland) Division had advanced on Veere and units of the division's No. 157 Brigade reached Middelburg. Early on the morning of D+7, No. 4 Commando, by then approaching Veere, accepted the surrender of the remaining German troops.

Minesweeping operations to clear the Scheldt were already in progress. By November 28 the first convoy, led by the liberty ship *Fort Cataraqui*, was able to berth at Antwerp, and, with its arrival, the urgently needed supplies began to flow along the shortened routes to the front. On Walcheren the shattered hulks of the support ships and the silent abandoned gun positions bore mute testimony to the courage and determination of the men who had made it possible.

Although the invading troops were unaware of the fact at the time, Hotel Britannia served as the German headquarters in Flushing. Its seafront position at the northern end of the Boulevard Evertsen near the Nollegap made it an objective which had to be eliminated. The 7/9th Royal Scots were assigned the task by Brigadier McLaren and the attack began in the early hours of November 3. The plan was to circle around and attack it from the north but this involved the men approaching through water up to three feet deep. Cutting up Badhuisstraat (see photos *below*) a burst of fire from the water tower wounded several men before it was silenced. After a difficult march the attack began at 4.30 a.m. Immediately the extensive German defences came to life including a four-barrelled 20mm cannon on the hotel roof. Two platoons managed to storm the ground floor under covering fire and they began clearing the interior. Meanwhile the battle continued outside where the Germans were emplaced in trenches and bunkers. By 7.30 a.m. the hotel was alight and, as it was imperative to evacuate the burning hotel, some bunkers nearby were rushed. Breaking down the door, the Scots found Germans packed inside including the garrison commander, Colonel Reinhardt, and, with his surrender, resistance crumbled. *Above:* The burned-out shell after the battle and *below* the present day replacement.

Badhuisstraat with the water tower from where the Royal Scots were fired upon. *Left:* Townspeople . . . and a dog . . . make a splash. As the caption says: 'Flooded Flushing is freed' (Associated Press). *Right:* Wilco checks for our comparison.

'For you the war is over.' After his capture, the somewhat scruffy looking Colonel (nicknamed 'King of Zeeland') was taken to British headquarters which had been set up in the commandeered Bethesda Hospital on Koudekerkseweg. The hospital has since been extended and a new entrance built but we managed to find the original entrance.

The next objective after Flushing had fallen was Middelburg. The town in the centre of Walcheren was isolated by the floods and any advance along the tops of the dykes was suicidal. On the night of November 4, Brigadier Watkinson, commanding the 1st Assault Brigade, with officers from the Royal Scots and 155th Brigade, investigated a possible route using amphibians across the flooded aerodrome which lay on the western side of the Walcheren Canal. The reconnaissance was positive and the following day eleven Buffaloes set out at 12.30 p.m. Eight managed to make the crossing safely to take the Germans from the rear — they had expected an attack from the east. *Above* Cecil Phillips's picture of November 7, 1944 and *below* a hazy February 23, 1982. Since the war the sprawling suburbs and factory estates have expanded Flushing towards the airfield.

When the Buffaloes came 'ashore' they were welcomed by cheering crowds . . . and a rapidly increasing number of Germans. The latter did not seem aggressive so, after leaving the amphibians in the main square, Major R. H. B. Johnston of the 7/9th Royal Scots set out to find the German commander of the 70th Infanterie Division — General der Infanterie Wilhelm Daser — responsible for the defence of Walcheren. His unpretentious HQ was found at Nos. 6 and 8 Dam. Major Johnston sent in his interpreter inside to find the General but when he returned he reported that the German commander stated he would not talk with any officer below the rank of Colonel. Major Johnston takes up the story: 'So I forthwith became a Colonel and 'A' Company an unspecified but very potent formation of the British Army. As I was wearing a windproof smock with an old scarf around my neck, I looked more like a tramp than a soldier, and I was certain that if General Daser accepted me as an officer at all, he would be just as likely to accept me as a Colonel. We found General Daser pacing his office, surrounded by his staff and in no very affable mood. I informed him that the British Army had arrived, that he must order ''Cease Fire'' immediately, and I detailed to him the surrender terms given me by the Brigadier.' The German commander agreed to provide one of his staff officers to visit his units in the town with Major Newton-Dunn of the 11th Royal Tank Regiment and order a cease fire. Meanwhile, more Germans and civilians were massing outside. When the German staff officer returned, having seen the smallness of the British force opposing them, he attempted to tell the General that his surrender had been premature but was quickly removed and put into solitary. By now the crowds had become uncontrollable and it was only the timely intervention of the Dutch resistance movement who saved the day by posting guards and disarming those of their countrymen who were getting over exuberant with captured weapons. Reinforcements were requested by radio and word was received at 2.30 a.m. that help was on its way. At a count made the following morning a total of 2,000 Germans were in the bag and Middelburg had fallen without any British casualties.

The ancient town of Middelburg lies on high ground surrounded by a moat. Nearly 60,000 people had sought refuge there and the inner part was crammed to overflowing. *Left:* Here, at one of the bridges across the moat, the floodwater ends — a police boat ferries people and their belongings from their inundated homes in the outer parts of the city. December 4, 1944 (IWM). *Right:* Nearly forty years later, the Veerse Singel would appear none the worse for wear with no sign of water damage.

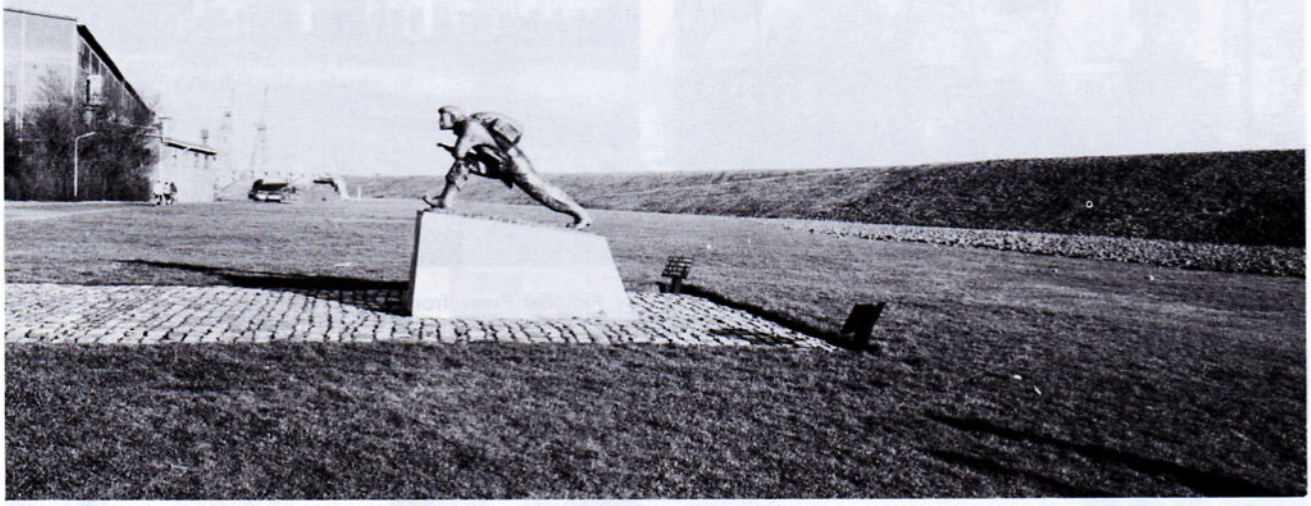
Beyond the moat the story was rather different with two to three eet of water throughout every home. *Left:* This shot was taken by Pictorial Press from the western rampart of Noord Singe *Right:* The road alongside the moat is called Singel.

Left and above: Noah's Ark in Veerse Singel — Sergeant Hard records the scene at No. 220 on December 4, 1944 (IWM).

Left and above: Park van Nieuwenhove then and now — th water here measures thirty inches deep (IWM).

Left and above: Contrasts in transport in Havendijkstraat — th

Walcheren in 1982



Veterans of the 1944 landing would not recognise the reconstructed Uncle Beach.

The most traumatic change on Walcheren since 1944 has taken place on the seafront at Flushing itself where virtually the whole sea wall had been rebuilt over the eighteen months prior to our visit in February 1982. Indeed work was still proceeding on the construction of a fine new promenade along part of the coast road near the Britannia Hotel — the old German headquarters — which has itself been completely rebuilt since the war.

The massive sea wall — more a stone-faced dyke — behind the 'Commando' beach on the eastern side of the town, alongside the Oranjemolen, has been increased in height and between the built-up area and the dyke a memorial to No. 4 Commando has been erected on an open space bordering Commandoweg. The monument depicts a Commando running towards the town and each year a ceremony is held there on the anniversary of the landings. Only in the year prior to our visit had new houses been erected nearby and, appropriately, due to their proximity to the landing beach, the street has been given the name of Landingstraat. (The nearby Kogelparkstraat — Bullet Park Street — has no wartime significance.)

Several hundred metres to the west the so-called bomb-proof barracks, which dated from the Napoleonic era and were fortified by the Germans, have been demolished, except for the Gevangentoren or prison tower, being replaced by a block of flats. During the demolition, the bodies (or rather skeletons) were discovered of some long forgotten soldiers who must have died there — two French soldiers of the Napoleonic period in an underground tunnel and three Germans in a sealed up bunker.

At Westkapelle landing beaches, however, the situation is almost the opposite. German beach obstacles — iron girders set into the concrete in front of the sea wall, can still be seen — a feature which we have never seen anywhere else although recent reports that the sea wall should be strengthened places their future existence at risk. The beaches themselves are largely unchanged, and it is still possible to find rifle ammunition scattered about the rocks. A Sherman tank, as we were told, one of the two M4A3s abandoned during the landings, has been set up behind the beaches as a memorial although unfortunately it has suffered the attentions of numerous 'Kilroys'.

At Westkapelle the landings took place alongside, around and through the gap blown by the RAF in the beach dyke — one of the most interesting aspects, we feel, of the Walcheren operation, especially for 'after the battle' enthusiasts as each gap still remains to be seen today. Of course this does not mean they have not been repaired but in every case the line of the new dyke lies a few hundred yards behind the old wall — creating a sort of mini bay — as it was impossible to rebuild the dyke along the line of its original position due to the depth and turbulence of the water. Naturally we visited the locations of all four breaches — guided throughout our visit by the very able Wilco Vermeer. Wilco is one of our Dutch readers and, having made an on-the-spot study of all aspects of the battle, proved an admirable guide. There is no doubt that without his help we would have missed much of what still remains to be seen and he made our stay all the more interesting with his intimate local knowledge. What strikes one most is the tremendous width of the breaks in the dyke — all at least 500 metres, with the Sloegap nearly three-quarters of a mile wide.

To repair the dykes, caissons were sunk to stem the flow of water to enable a new embankment to be built up. The water remaining inland was then pumped out and although many people dreaded many years' poor harvests from the salt-laden ground, this fear did not materialise.

The Sloegap, four kilometres to the east of Flushing, was the last to be sealed at the end of 1945. Perhaps the most beautiful feature of the Sloegap is the fact that the shallow waters and mudflats created by the flooding have become a home for many birds and other wildlife, and the area has now been declared a nature reserve with official protection. Backing onto sparsely populated farmland, before parking for the walk along the old dyke to the gap, one passes the old Fort Rammekens, with its adjoining modern ammunition storage compound. It was early and all was quiet when we reached the spot which is a nature-lovers paradise with only the sea birds to keep one company. Ships going to or coming from Antwerp passed silently offshore where the sun shone brightly through a misty February morning. In the centre of the beach lay reinforced concrete cassions brought in to help block the gap and now left to slowly sink into their sandy graves.

At Nolle, to the west of Flushing, the rubble from the old German position of W3 lies scattered in the gap having been demolished most probably to assist in repairing the dyke. It ought to be explained that the numbers attributed to the German batteries such as W11, W15 and so on were those originally given each position by No. 84 Group and were subsequently adopted by all the British services. The code numbers seem to have stuck in all post-war accounts of the battle and the German nomenclature (W7 was in fact 9/202 — the first number being that of the battery and 202 for the 202nd Marine-artilleriebataillon) largely forgotten.

The gap created at Veere on the northern shore was used to good effect by Dutch civil engineers when constructing the post-war dyke between Walcheren and North Beveland. Whereas in 1944 Veere was open to the North Sea, it now lies on a huge man-made lake, very slowly losing its salt and becoming fresh-water. The bay left by the original closure of the Veeregap was converted into a small sheltered dock during the construction of the new wall and it now provides a perfect marina for the hundreds of yachts which sail the Veersemeer, as the lake is now called, in summer.

The marshy swamp that remains in the hinterland of each breach testifies to the flooding which the people of Walcheren had to tolerate for several months after the war ended. One local man told us that at high tide the whole bottom floor of his house was covered with two or three feet of water and at low tide, when the water receded, by a layer of silt and mud which had to be cleared away, twice a day, for a year!

An additional hazard, common to most countries over which the battles of WWII were fought, is the unexploded ammunition, bombs and shells. Walcheren has had its fair share and the reconstruction of the Flushing eastern beach was particularly delayed by the continual discoveries of ordnance in the sandy soil. We spotted severely rusted shell cases, either 75mm or 88m, still embedded on the beach at Nolle. Local police are hot on anyone found digging and notices are posted to this effect in several places although, to be fair, the reason is sometimes because of possible damage to water catchment schemes.

When visiting many areas of Holland to-day one must bear in mind how the countryside — even the shape of the country itself — has changed since the war years, and continues to change, due to the extensive land reclamation schemes. Veere is one example to be seen on Walcheren — another is the huge Sloepolder scheme which has had the effect of widening the causeway to the mainland from literally a few dozen yards during the battle to six kilometres today! In 1944 only a narrow causeway, 1,200 yards long by forty yards wide

carrying a single road and railway line to Middelburg prevented the Sloechannel in the south from meeting the sea in the north. It was along this causeway that infantry of the 2nd Canadian Division attempted to reach Walcheren in the afternoon of October 31 — the day before the amphibious landings. After suffering heavy losses, the unit was withdrawn and another took its place for a night attack. With strong German defences grouped around the western end, and water on either side of the embankment which was exposed to enemy fire along its entire length, this attempt also failed. A third attack the next morning had the benefit of a preparatory artillery barrage and the Canadians managed to reach the western end only to be later driven back by a strong counter-attack. The Canadians dug in some three hundred yards back along the causeway and held on throughout the night until they went forward again at 4.00 a.m. on November 2. Reaching the mainland, this time they stayed, being assisted in their efforts by rocket-firing Typhoons.

Today although the raised embankment still remains, it has been widened to carry the A58 motorway (formerly the N97) and since 1959 the sea has been driven back on either side. However, we found it odd that the single memorial which stands beside the original road, directly on top of the old western dyke, commemorates a French action there in 1940 with no mention of the bitter Canadian struggle four years later.

Undoubtedly the saddest story to come out of our Walcheren trip was what we discovered surrounding the recent erection of a simple concrete cross crowning the dunes at Klein Valkenisse, halfway between Flushing and Zoutelande. The forest behind the dunes contains several bullet-marked bunkers and even a line of dragon's teeth but the memorial commemorates the memory of something more tragic than the November 1944 battle — the secret execution of five resistance workers a few weeks before the invasion.

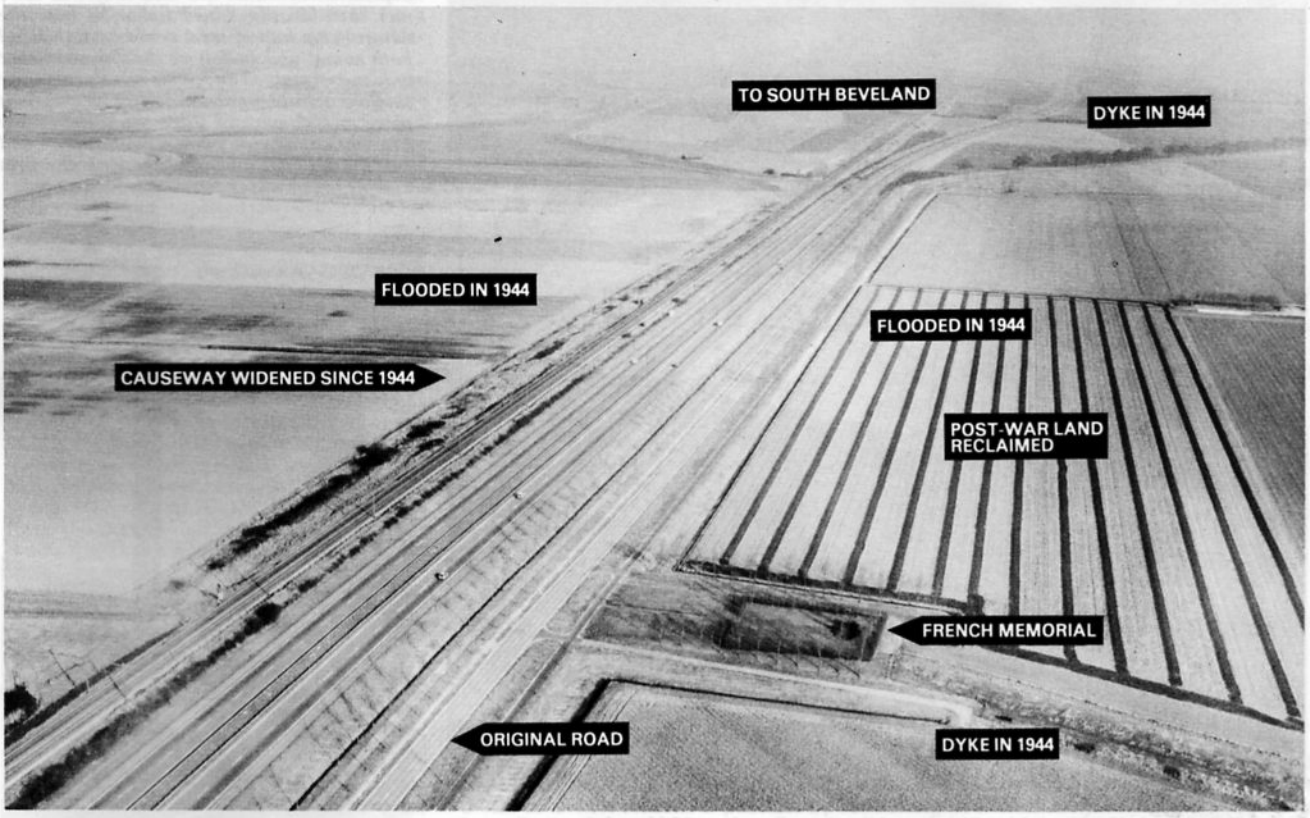
The truth emerged when the Documentatie Group 'Walcheren 1939-45' began to research a seemingly unrelated incident — the crash of Halifax LL287 of No. 138 Squadron, NF-S, which was shot down by flak over Hansweert while on a Belgian resistance mission on March 30, 1944 — the night of the famous Nuremburg raid — the flight probably being disguised as part of the main Bomber Command operation. Out of the ten on board five were killed, two being Belgian agents, one of whom was Robert Deprez. The five survivors took to the dingy and paddled ashore where they decided to separate into two groups of three and two. The first party reached s'Gravenpolder in South Beveland where they were caught and taken to a German PoW camp. The pilot, B. B. Mill, and the co-pilot, Dennis Beale, went in the opposite direction to a farmhouse on the Biezelingse Dyk. There they were fortunate to be taken up by the Dutch resistance who were running an escape route to England. After crossing to Terneuzen, they were sheltered by Belgian families in Zelzate who were already hiding forty-seven other Allied airmen. On September 7, 1944, German troops arrived to search the farms but Mill and two others escaped through the roof. Beale was captured. The Feldwebel in charge wanted to shoot the Belgians there and then but a Leutnant Hoffmann intervened and Albert Colvenaer, his son Yvon, together with Dennis Beale and M. Pierets, the owner of another farm, were taken to Flushing via Breskens on September 8. There they were imprisoned in the 'bomb-proof' barracks on the sea front where they were joined by two local people, Mr. Dieleman from Wissenkerke and Mr. Wim Niesthoven from Middelburg.

At this stage Dennis Beale was separated from the others and taken to a German PoW camp.

After a token trial, the five were sentenced to death and Oberst Reinhardt proclaimed that they would be shot for terrorist acts and sabotage. Denied religious comfort, on Monday, September 11, 1944, a lorry arrived to take the five to the dunes. Another truck provided transport for the firing squad. What happened next was recounted by a Polish soldier fighting with the Germans. He described how the prisoners were made to climb the dunes and stop in a hollow. There they dug their own graves in the soft sand. They were then tied to stakes with their backs to the sea. A German officer went to the boy Yvon and offered to spare his life if he would talk. The boy retorted that he did not want to be a traitor and as he died the cry was: 'Long live Belgium.'

When he was later captured, the Polish soldier (who later joined the Allied forces) came to Walcheren on his own initiative to help find the victims in the sand dunes. Five bodies were uncovered and, nearby, another of a boy, 19-year-old J. van der Weij from Middelburg, who had also been shot.

Monument to French soldiers killed in 1940.

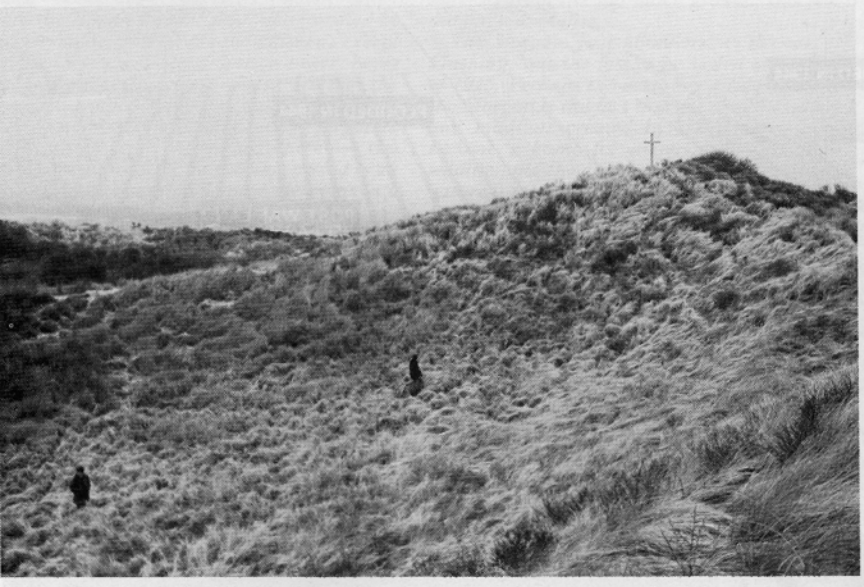


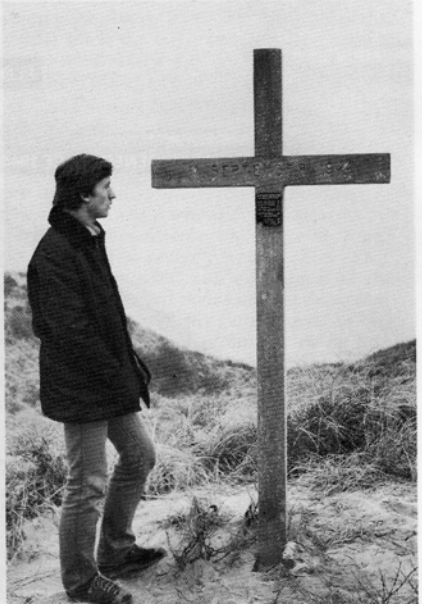
The raised causeway along which the Canadians fought a suicidal battle photographed in February 1982 looking eastwards.

Wilco Vermeer leads the way to the cross on the skyline.

And so it was on a sharp yet misty morning, leaving our hotel situated quite close to the now-demolished bomb-proof barracks which had been the prison of the five, we drove north towards Biggekerke. Turning off towards the sea, we quietly coasted to a stop in the forest beneath the towering dunes. Unusually, the route to the execution site with its memorial is not marked; indeed, people are discouraged from climbing the dunes by barbed wire fences, and a natural barrier of prickly thorn forms an additional hazard. Stumbling and sliding, shoes full of sand, we climbed to the top of the mountainous dunes — at this point towering some hundred feet or so above the beach. Just to the south the cross stood out against the grey sky and we made our way up hills and down hollows towards it. Although we were silent all our thoughts must have turned back to the day when other men came this way — some only on a one way journey.

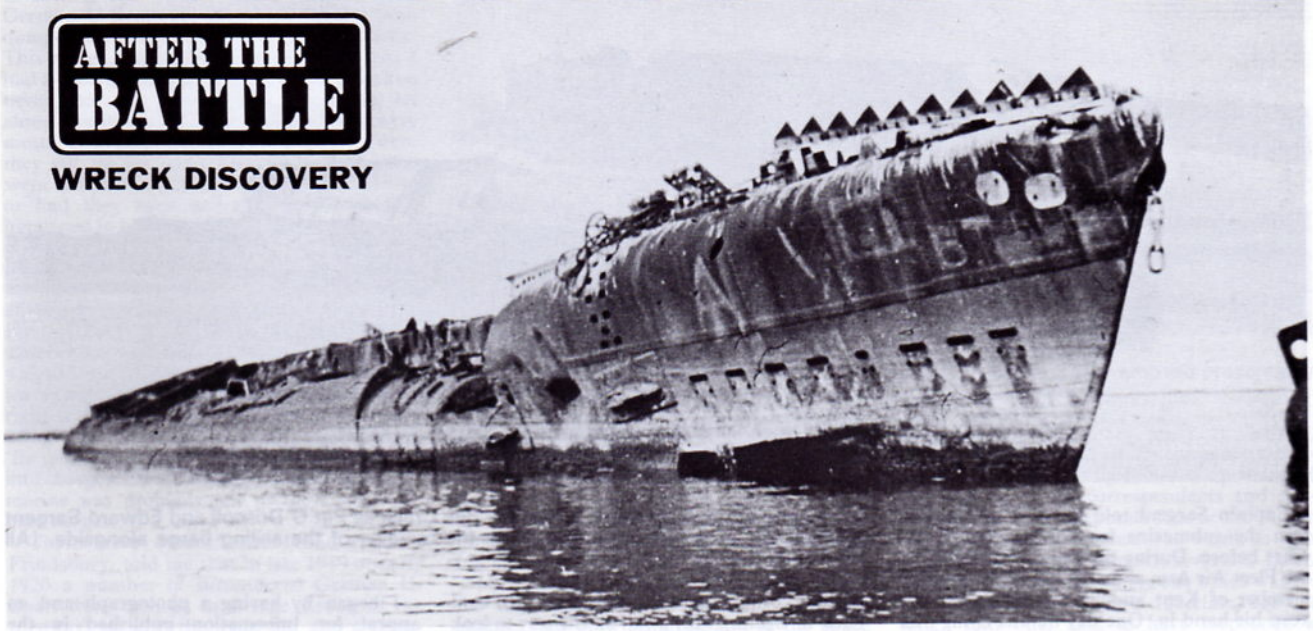
The marker lies on the inner side of a huge depression in which the men may well have met their deaths. Lined up at its base the natural stop butt of sand would have shielded both sound and bullets as the five were shot only to be tumbled unceremoniously into their shallow self-dug graves. It was a poignant place to end, and for us to slip silently away . . . to our homes . . . our families . . . and our friends . . . and continue with the lives and pleasures we take so readily for granted.





AFTER THE BATTLE

WRECK DISCOVERY



WWI MEDWAY U-BOATS

Picture taken in the 1930s of one of the two U-Boats which then lay in Slede Creek. Although scrapped around 1940, the bottoms still remain embedded in the mud (A. V. G. Norwood).

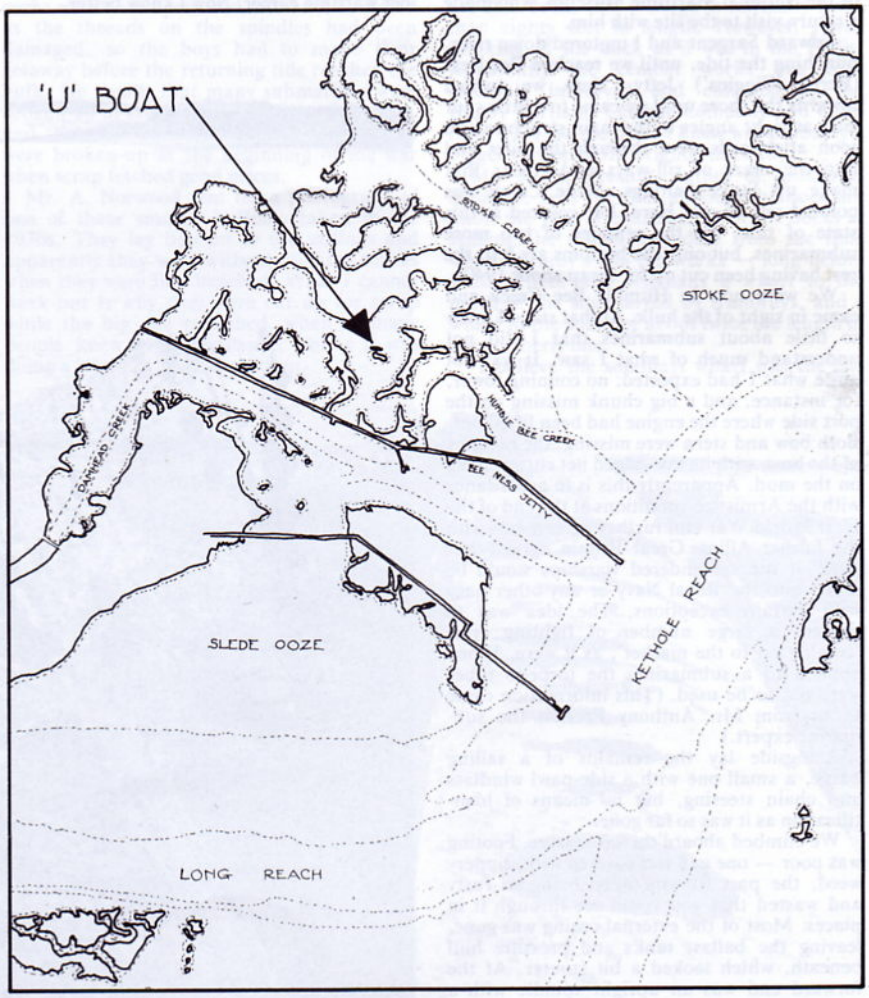
BY PAT O'DRISCOLL

A berth on a barge was the ideal job years ago for anybody with an interest in what is now called industrial archaeology. Barges were often anchored in out-of-the-way spots, either weatherbound or waiting for water up to the head of tidal creeks — like Otterham Quay or Fingringhoe Mill off the River Colne in Essex — which were navigable only a little either side of high water. Sometimes barges had to wait several days, if delayed in loading, for the tides to make again if bound for a place that could not be reached on neap tides — Battlesbridge, for instance.

By working in such craft I got to know the minor creeks of the Thames Estuary pretty well, but there was a 'dead' spot, so far as I was concerned, and this was Stoke Saltings on the north bank of the Medway, a little way above the tanker jetties at the Isle of Grain oil refinery. I had explored on foot as far as Abbott's Court Wharf in West Hoo Creek, where lie the remains of a big American auxiliary schooner, the *Sierra Nevada*, which came to the Thames in 1924 and became a roads barge by the name of *Birchrock*.

At the other end of this 'dead ground' was Jetty No. 9 at the Isle of Grain, where I had often been with a barge to load drums of oil for export. Here I had seen the remaining stumps of Port Victoria Pier at Low Water (built 1882) and been told by one of the old hands how Queen Victoria, and sometimes the German Kaiser, used to join the Royal Yacht *Victoria and Albert* here. I later found that this was perfectly true. What I didn't know was that a number of interesting hulks could be found in Damhead Creek, a little upstream, and that in nearby Humble Bee Creek lay a recognisable German U-Boat, with the remains of two others in Slede Creek.

Some years later, when I had come ashore, I received a 'phone call from Captain Tom Sargent who told me about the submarine, which he thought I should see, and offered to take me there in a boat. The next convenient day with a suitable tide was on August Bank Holiday 1975 and I went down with his son Edward to Lower Upnor where the boat, which was on a trailer, could be launched from a causeway.



Plan of part of the Lower Medway showing the position of the remains of a First World War German U-Boat, believed by German submarine expert Herr H. K. Gast to be either U-122 or U-123. Access is possible by foot along Bee Ness Jetty although the Medway Ports Authority advise that the wreck itself can only be reached by boat and then only at the right tidal height and conditions (Edward Sargent).

First sight of the submarine in Humble Bee Creek as Pat O'Driscoll and Edward Sargent approached it at half-flood tide. Note the remains of the sailing barge alongside. (All photos by the author.)

Captain Sargent told me that he had first seen the submarine from the air about ten years before. During the war he was a pilot in the Fleet Air Arm and afterwards he became a member of Kent and Surrey Flying Club to keep his hand in. One day he was flying over the area and noticed an object on the marsh below which his trained eye identified as a submarine. Pin-pointing it on his map, he returned at a later date by boat and found that it was more than 200 feet long and was from the First World War. He told George Osbon, of the National Maritime Museum, who made a return visit to the site with him.

Edward Sargent and I motored down river, punching the tide, until we reached Bee Ness (Berry Wiggins') Jetty. Here we turned towards the shore until we came to a little spur jetty at right angles to the main structure and soon afterwards went through the piles and into the maze of rill-ways and creeks that make up Stoke Saltings. Slede Creek was pointed out to me. Here, but covered at this state of tide, are the remains of two more submarines, but only the bottoms are left, the rest having been cut up for scrap about 1940.

We were now in Humble Bee Creek and came in sight of the hulk. At that stage I knew so little about submarines that I did not understand much of what I saw. It was not quite what I had expected: no conning tower, for instance, and a big chunk missing on the port side where the engine had been lifted out. Both bow and stern were missing, the remains of the bow, with its saw-edged net cutter, lying on the mud. Apparently this is in accordance with the Armistice conditions at the end of the First World War and further agreements with the former Allies. Great Britain agreed that none of the surrendered warships would be taken into the Royal Navy or any other navy with certain exceptions. The idea was to prevent a large number of fighting craft 'coming on to the market', as it were. When applied to a submarine, the torpedo tubes were not to be used. (This information came to us from Mr. Anthony Preston the submarine expert.)

Alongside lay the remains of a sailing barge, a small one with a side-pawl windlass and chain steering, but no means of identification as it was so far gone.

We climbed aboard the submarine. Footing was poor — one end was covered with slippery weed, the part without weed being so rusty and wasted that you could see through it in places. Most of the external casing was gone, leaving the ballast tanks and pressure hull beneath, which looked a bit stouter. At the forward end was an upright spindle with a bevel gear at the base and this, I thought, was probably the remains of a small capstan. Inside the hull (into which I did not venture, as it was half full of mud) were apparently racks for sixteen torpedoes, and she had four torpedo tubes forward and one aft. I took a number of photographs and then we went back to Upnor, with a call on the way to look at some hulks in Stangate Creek.

Then started a long investigation. I thought that it would be fairly easy to find out which U-Boat it had been and fondly imagined that once this was established, I could contact the German naval authorities and get details of her wartime career. Now I know better.

I began by having a photograph and an appeal for information published in the *Chatham News* and the response was good. The problem was that there were too many possible candidates to choose from. After the First World War submarines were surrendered at Harwich and at Chatham. Then the bottom dropped out of the scrap market in the 1920s so that they were not worth the trouble

The bow has been removed together with the saw-edged net cutter and lies on the mud in front of the hull.

of cutting up, so no fewer than twenty-six German U-Boats are supposed to have been dumped in various creeks in the Medway area. This rather surprised me, as I thought that I had a good knowledge of these creeks, but had never seen any sign of one submarine, let alone twenty-six. The remains visible were mostly of wooden barges and lighters. So were they cut up for scrap before I came on the scene in the 1950s, like the two in Slede Creek, or had they been under water whenever I happened to be there?

People wrote in from far and wide. A fisherman, whose father could have told me the number of the submarine had he still been alive; a man who saw it put there just after the First World War; Frank Willmott, from whom I learned that the place where she lay was the site of a big 'Mud Hole,' where clay for cement manufacture was dug out at the right state of tide by men called 'muddies', using narrow-bladed wooden spades known as 'fly tools' with which they loaded spits of clay into barges. The hulk alongside the submarine was probably one of these worn-out mud barges.

There were others. Mr. Leslie Hill, of Frindsbury, told me that in late 1919 or early 1920 a number of surrendered German U-Boats were moored in Bridge Reach of the Medway, all with the letter UC and a three-figure number on their conning towers. They were stripped of their engines and anything of value, but he cannot remember the hulls being cut up.

A number of correspondents told me about Mr. Albert 'Spot' Batchelor, who owned a small private cement works up-river at Halling, later taken over by the Rugby Portland Cement Company. It was still working during my time on the river and, when I first went there to load cement in 1959, my barge and another lay in a small dockway at right angles to the river. Ten years later, when I loaded there for the last time, it was being filled in. I will come back to this dockway later.

Mr. Batchelor kept a steam yacht and even had a private aeroplane when such a thing was most uncommon. This suggests either that he had private means or else there was a very good living to be made out of the manufacture of cement in those days. In 1914 his cement works at Halling was driven by a steam-engine. About 1919-20 he bought a number of U-Boats and took the engines out of them. The machinery of the submarines (wrote a correspondent who preferred not to be named) consisted of a 700 hp MAN diesel engine for main propulsion, two 490 hp manually reversible engines and 230V Siemens generators.

Two of the bigger motors went to replace the steam-engine at his cement works (unfortunately they were scrapped before I started to investigate). Two more went to the Holborough cement works at Snodland (established 1926). Southend Corporation bought two from him for the local power station and they saved the town from blackouts on a number of occasions. A further two, complete with generators, supplied power to the Wembley Exhibition of 1924 while a pair went to Daventry for the famous 2LO broadcasting station. Two even went out to New Zealand for use in the building of a hydro-electric project.

Mr. J. R. Kerr, who was then a small boy, recalled to me how he would earn a penny — and a look at a former U-Boat engine in action — by delivering the Sunday dinner of the engineer on duty at the Municipal Power Station at Gillingham.

Mr. P. Squires, of Hoo, actually saw the three submarines arrive at Stoke Mud Hole, towed by Knight's tugs *Kenley* and *Kent*. The big ocean-going submarine, he says, might have been *U-118* although he is not positive. By a strange coincidence Joe Hines, who knows the Damhead Creek area well, sent me a photograph of *U-118* ashore at Hastings. I checked with the local paper and found that she was indeed washed ashore there in April 1919, having broken away from the craft towing her in heavy weather, and she was cut up where she lay. Another U-Boat which broke away at the same time came ashore at Cuckmere.

A section of the hull on the port side, roughly amidships, has been removed presumably so that the engines could be lifted out.

Mr. Squires and other boys crept aboard the big submarine. By then, he said, the engines had been removed and in the space left there were a number of 15ft pontoons, and any amount of corrugated rubber tubing, as used in gas masks, which soon vanished to emerge as bicycle handlebar grips. There was a painting of King George V with a hangman's noose around his neck. The sea cocks were wide open, and could not be closed as the threads on the spindles had been damaged, so the boys had to make their getaway before the returning tide reached the hulk. He recalls that many submarines were broken-up at Lower Upnor, further upstream, and that the two submarines in Slede Creek were broken-up at the beginning of the war when scrap fetched good prices.

Mr. A. Norwood sent me a photograph of one of these smaller U-Boats taken in the 1930s. They lay bow-on to the saltings and apparently they were without conning towers when they were first beached. What I cannot work out is why they were cut up for scrap while the big one remained, when so many people knew of its existence, unless it was doing a job in its present position.

A reader at Gillingham, Mr. L. A. Griffith, who took a great interest in unravelling the U-Boat story, very kindly followed up many of the leads given by correspondents and consulted Admiralty Disposals files at the Public Record Office. One man who wrote to him spoke of helping to dismantle several U-Boats at Halling including one big one which was *U-112*. She was one of the U-105 class, 235½ ft long. This one, said to have torpedoed a hospital ship during the First World War, lay in the dockway of the cement works and was so long that part of it stuck out into the river.

My first reaction was that it must have been very long, as to my certain knowledge two barges, with a space in between them, could use this dock, and a barge is normally more than eighty feet in length. However, I was thinking of the dock as it was in the 1960s. Apparently the cement works was considerably improved and enlarged by the Rugby Portland Cement Company and dates from 1936, so the place I knew was probably a bigger version of the original dockway.

Mr. J. M. Preston, author of *Industrial Medway*, tells me that although he does not know the year of construction of the docks at Halling, he thinks they date from the time when Formby's ran the works — long before 1920. There was originally a wharf to the north of the site, served by tramways, and a wharf to the south of about twice the length of the northerly one.

'I believe the southerly wharf was the one

Standing aft and looking towards the bow along the length of the sub. The picture was not taken right from the stern because of slippery weed making it unsafe.

The footing on the pressure hull is poor and the metal very thin and wasted.

A spindle with bevel gearing at the base — most likely the remains of a small capstan.

most recently in use,' he says. 'By my calculations the northerly wharf was about 170 feet and the southerly about 140 yards from river to sluice. Which one was used for the submarine I do not know, except that it was at the works. . . . I think from what you say it was the north wharf that was used. But I can confirm the existence of the wharves before 1920.' (His rough sketch will be of interest to readers and an artist's impression is reproduced here.)

Red lights had to be shown on the end of the submarine where it encroached upon the channel so that craft working on dark tides were warned to keep clear. One story goes that this continued for three years but, considering the busy place it must have been in the heyday of the cement trade, it is not easy to believe that a berth could be spared for so long.

Word came indirectly from Mr. M. T. Knight, of the tug-owning firm, giving some useful background on Stoke Mud Hole. This grew to an enormous size, like a great lagoon with two entrances for barges, and was only one of several such clay diggings. As long ago as 1910 the Admiralty was getting worried about the extent of taking clay from the saltings of the lower Medway. The report issued in that year revealed that the clay workings were altering the course of the main channel of the Medway, particularly in the Bishops Marsh area.

Brice's, operating Stoke Mud Hole, was one of the firms that ultimately had to cease work, although some digging went on until about 1939 when the area reverted to marsh again. Some worn-out mud barges may have been left there.

There were also a number of barge hulks in nearby Damhead Creek but they were broken-up during construction work on the new jetty at Oakham Ness, immediately up-river. Alan Cordell, who has also investigated the barge hulks in this area, tells me that the sailing barge remains alongside the U-Boat are most likely those of Brice's *Swale*, 37 tons, built in 1864. According to local sources, she was put there in the mid-1920s and used as a pontoon when the submarine's engines were taken out. The engines ended up at the Rugby Cement Works at Halling, above Rochester Bridge, as mentioned earlier.

Another story says that she was used as a lifting barge when Brice's *Plover* stranded across a gutway while entering (or leaving) Stoke Mud Hole. She was strained and in danger of sinking, but quick action with a lifting barge got her out of trouble and the *Plover* resumed trading and was finally hulked in Whitewall Creek in the 1960s.

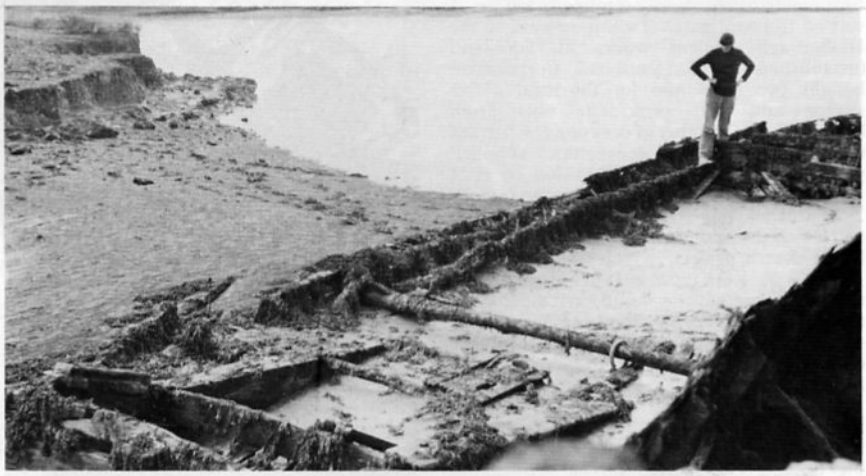
So this is as near as we are likely to get to the truth. *Swale's* official number is 47955 and this number and her tonnage would have been carved on her main beam. It is often the only means of identifying such a hulk if the name is missing but in this case the remains were too far gone for it to be found. There was apparently another sailing barge named *Swale*, built in 1894, (there *would* be) but I have ruled her out because the hulk had chain steering which would have been the case with a barge built in 1864. Chain steering was superseded by screw steering later in the century.

One mystery is solved, but the other remains, for the U-Boat resists all attempts to discover who she was. There are books written in German giving the fate of various World War I U-Boats and several people have kindly examined these for me. However, the details are mostly too vague to be of much help. 'Lost on east coast of England', for instance, covers a lot of territory.

A further complication, as if there were not enough already, is that a number of new submarines were seized in yards at Kiel, Hamburg, etc. These had not yet been allocated a 'U' serial, being probably still known only by a yard number. They were brought to England, apart from being reparations, because our experts wanted to see the latest German ideas since their submarines had been so effective during the war — as they were to be when the next war began in 1939.

So there we are, back where we started, and it is more than five years later. The rusting hull still lies in the same place, getting steadily rustier. Probably we shall never know exactly who she was. The search has taught me a lesson and I now know a lot more about submarines than I did at the outset, so perhaps I've gained something after all.

And now I have a tangible reminder. Three years ago a friend who used to run a Sea Cadet unit took their m.f.v. around to the Medway on a training cruise. I had told him about the submarine, so he took a boat's crew in one day to see it. On his return he presented me with a heavy, circular lump of rusty metal about four inches across which today lies on my book-case. I often wonder if one day, after I'm gone, someone will ponder where it's from, and what it's all about. . . .



Edward Sargent examines the mud-filled barge alongside the U-Boat, looking for her main beam on which her official number would have been carved. If readable, this can usually bring about positive identification of a vessel where her nameplate is missing.

AFTER THE BATTLE

WHERE ARE THEY NOW?

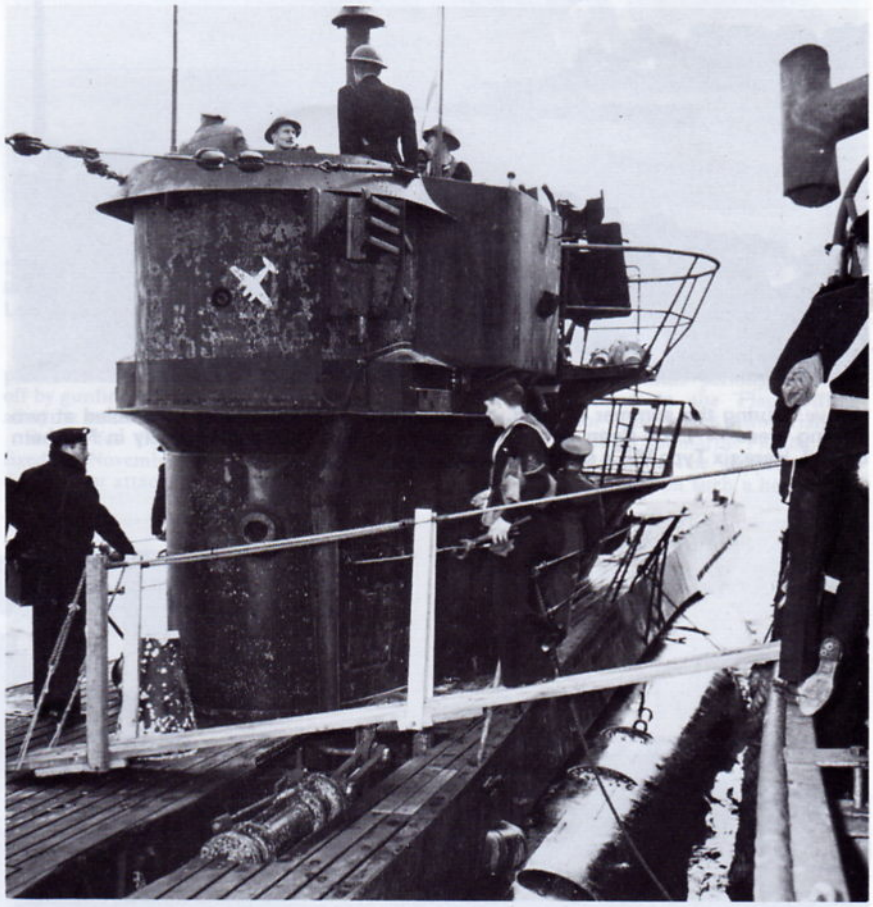
OPERATION DEADLIGHT

At the end of the war, the Allied Powers decreed that all U-Boats which had been captured intact should be destroyed. In the British sphere some 110 submarines of various classes were concentrated at Loch Ryan in Western Scotland and Loch Foyle in Northern Ireland (see table). On November 5, 1945 a conference was held in the Commander-in-Chief's office at Rosyth, Fife, to discuss the how, when and where arrangements for the disposal of the U-Boats. Chairing the meeting was Commodore J. W. Farquhar, DSO, RN, Chief-of-Staff to the C-in-C, Rosyth. As rough seas would make the towing and scuttling of the U-Boats a hazardous task, with the impending onset of winter it was decided to press ahead with all speed.

Orders were issued on November 14 giving the details of the operation. Weather permitting an element of training was to be incorporated and some of the U-Boats were to be made available for sinking by aircraft. Subsequently, it was planned that further vessels were to be allocated to the Third Submarine Flotilla to be 'attacked' by torpedo.

A datum position (codenamed XX) for the scuttling was established about a hundred miles north-west of Ireland. Depending on their location, the U-Boats would require to be towed between 130 and 180 miles to reach the designated area. The tow was to be by means of double bridles at not more than eight knots, reducing to seven knots for the Type 23 submarine. Conning tower hatches were to be secured on the latter but left open on all other U-Boats. No crews would be aboard. In the event of a lost tow, where recovery was impractical, the U-Boat was to be sunk where she lay provided it would not become a subsequent danger to shipping.

On reaching the scuttling position, for those U-Boats which were not to be targets for attack, charges would be exploded so as to collapse the bow and stern torpedo tubes and blow open certain hatches. This explosive was to be fired by safety fuse but, if the weather did not permit a boarding, a secondary electrical detonator was provided with cables



Top: **The first German U-Boat to reach England after the surrender was the U-249. She surfaced fifty miles south-south-west of the Lizard, radioed her position, and was told to make for Weymouth Bay. She was escorted into port on May 10, 1945 by two sloops (New York Times).** *Above:* **Displaying at least one aircraft kill to her credit, she was boarded by ratings under Commander N. J. Weir. The U-249 ended her days under Operation DEADLIGHT (IWM).**

How many readers remember visiting the U-776 moored off Westminster Pier in May 1945. Just over six months later she was at the bottom of the Atlantic (London News Agency).

Above: During the summer of 1945, the surrendered U-Boats were assembled at two staging areas — Loch Ryan on the west coast of Scotland and Lisahally in Northern Ireland. Here six Type VIICs enter Loch Foyle.

U-BOATS TO BE SUNK

As at November 14, 1945

AT LOCH RYAN

Type VII C

245	427	826	1052
249	481	907	1102
255	483	928	1103
281	485	956	1104
291	637	968	1110
293	680	978	1163
295	716	991	1194
298	720	992	1198
299	739	994	1203
312	760	997	1271
313	773	1002	1272
318	775	1004	1301
328	776	1005	1307
368	778	1009	
369	779	1019	

Total 58

Type VII D

218

Total 1

Type VII F

1061

Total 1

Type IX C

155	532	856	1230
170	539	868	1233

Total 8

Type XXIII

2321	2328	2337	2361
2322	2329	2345	2363
2324	2334	2350	
2325	2335	2354	

Total 14

Type II D

143
145
149
150

Total 4

Grand Total 86

LISAHALLY

Type VII C

244	668	930	1165
278	764	1010	
294	825	1022	
363	901	1109	

Total 13

Type IX C

516
541
802

Total 3

Type IX D 2

861
874
875
883

Total 4

Type XXIII

2336
2341

Total 2

Type XXI

2506
2511

Total 2

Grand Total 24

Left: Up until the mid-1960s the Royal Navy used the anchorage on the River Foyle for its mothballed reserve fleet. When the Navy abandoned Lisahally the quay was handed over to Richardsons Fertiliser factory. Culmore Point with its castle can be seen on the opposite bank (Ian Henderson).

to the towing vessel. Should both these methods fail, the escort would resort to other methods: gunfire, 'Shark' bombs or 'Squid' missiles. The latter ship-to-ship weapon was still top secret and specific instructions were issued that Squid was not to be used by ships having members of the Press or foreign observers aboard or within visual contact of the sinking. The use of depth charges as a possible means of scuttling the stationary U-Boats was ruled out because of the high speed necessary to clear charges set at shallow.

As far as the submarines provided as targets for the air bombing exercises were concerned, it was decided to allocate thirty-six U-Boats for this purpose split fifty-fifty between the Fleet Air Arm and RAF Coastal Command. Aircraft from the latter — Beaufighters, Mosquitos, Sunderlands, Liberators and Warwicks — would come from Nos. 18 and 19 Groups and be mostly armed with 250lb Mk VI anti-submarine bombs. The aircraft would be flown by crews who had not had wartime experience of submarine attack. Three U-Boats per day were to be provided for air practice providing weather conditions were suitable, the weather ship on station being the aircraft carrier HMS *Nairana* with No. 816 Squadron aboard.

If the weather was favourable for air practices, the U-Boats to be attacked would be diverted from the datum point to a position ten miles to the south at 55° 50'N 10° 05'W which was designated 'ZZ'. If this took place, the main scuttling position would itself be moved ten miles to the north to 'YY' at 56° 10'N 10° 05'W, thus giving a twenty-mile separation to avoid any accidents. All target U-Boats would have a broad white band painted athwartships on the forecastle and the hatch blowing charges would be omitted. The three submarines of each group (or is it packs) were to be released a mile apart and all towing vessels and escorts were to stand off three miles to the east before the attack was to commence. Aircraft approaching the target area were to circle the *Nairana* which would clear each formation by R/T. Although it was realised that the submarines would drift onto various headings, it was strictly laid down that attacks could only be made between 185° and 355°, i.e. any course within 85° of due West but not within 95° of due East.

Additional precautions had to be taken so that submarines of the Third Flotilla were not bombed by mistake and these vessels had the top surfaces of their fore and after casings and the vertical surfaces of their conning towers painted with alternate red and yellow diagonal stripes three feet wide. They also had instructions to identify themselves by burning a red flare from the periscope standard.

HMS *Blencathra*, in position at 55° 38'N, 08° 34'W, would act as safety ship for any air-sea rescue operations.

This low-level oblique gives a clearer idea of the layout of the quays and jetties at Lisahally. On the top right is the oil tank farm since demolished. The top of the picture leads to Loch Foyle and the open sea. Culmore Castle lies on the left, and the port of Londonderry behind the photographer (IWM).

Air operations were to be completed by 1.00 p.m. each day to give the escorts time to finish off by gunfire or Squid any U-Boats still afloat after the attacks.

D-Day for Operation DEADLIGHT was fixed as November 25, naval aircraft being detailed for attacks between D+5 and D+13 and Coastal Command aircraft from D+15 to D+23. In between these periods, U-Boats would be allocated to the Flag Officer (Submarines) for non-contact pistol trials by *Templar* of the Third Submarine Flotilla. The German vessels were to be slipped in the vicinity of position YY on such a heading so

Left: **June 21, 1945, looking up river towards Londonderry.** *Right:* **The jetty is now in an almost total state of collapse and is very dangerous. Note the white stone light buoy on the far bank as a common reference point in both pictures (Ian Henderson).**

The anchorage at Loch Ryan was bleak and exposed and the resulting damage to the hulls whilst bumping at anchor added to the number of U-Boats lost whilst towing. Picture taken during the operation on November 30 (Associated Press).

that the torpedo practice could take place clear of all other craft. The submarine was to attack in the dived position and go deep after firing until the torpedoes had detonated or run off range. These were to be set to run 2,000 yards and fired at a range of 600 and 1,200 yards and the charge was to be the minimum to maintain 45 knots. Firing intervals for the first salvo was to be six seconds with a second salvo at three-second intervals if necessary.

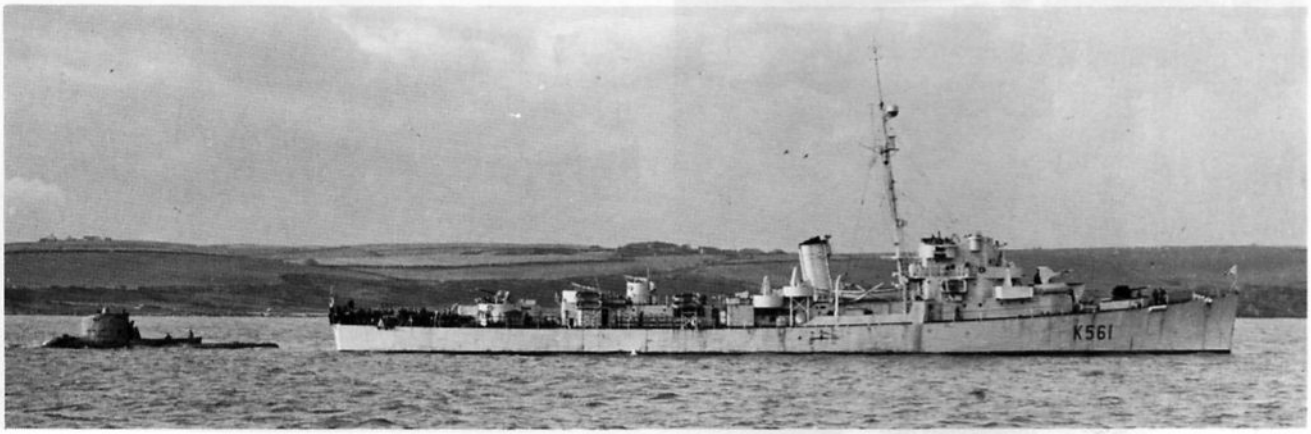
One interesting instruction for the Lisahally section of Operation DEADLIGHT was to the effect that HMS *Osprey* was to make a gramophone recording of a U-Boat sinking and crushing at depth. Several submarines were specially fitted for this purpose with charges in the stern compartment and under the conning tower hatch. All bulkhead doors were then closed to enable the forward compartment to remain watertight after the charges were detonated so that the sound of it collapsing could be recorded separately. It seems that the actual recording was made via a Type 147 Sono Buoy.

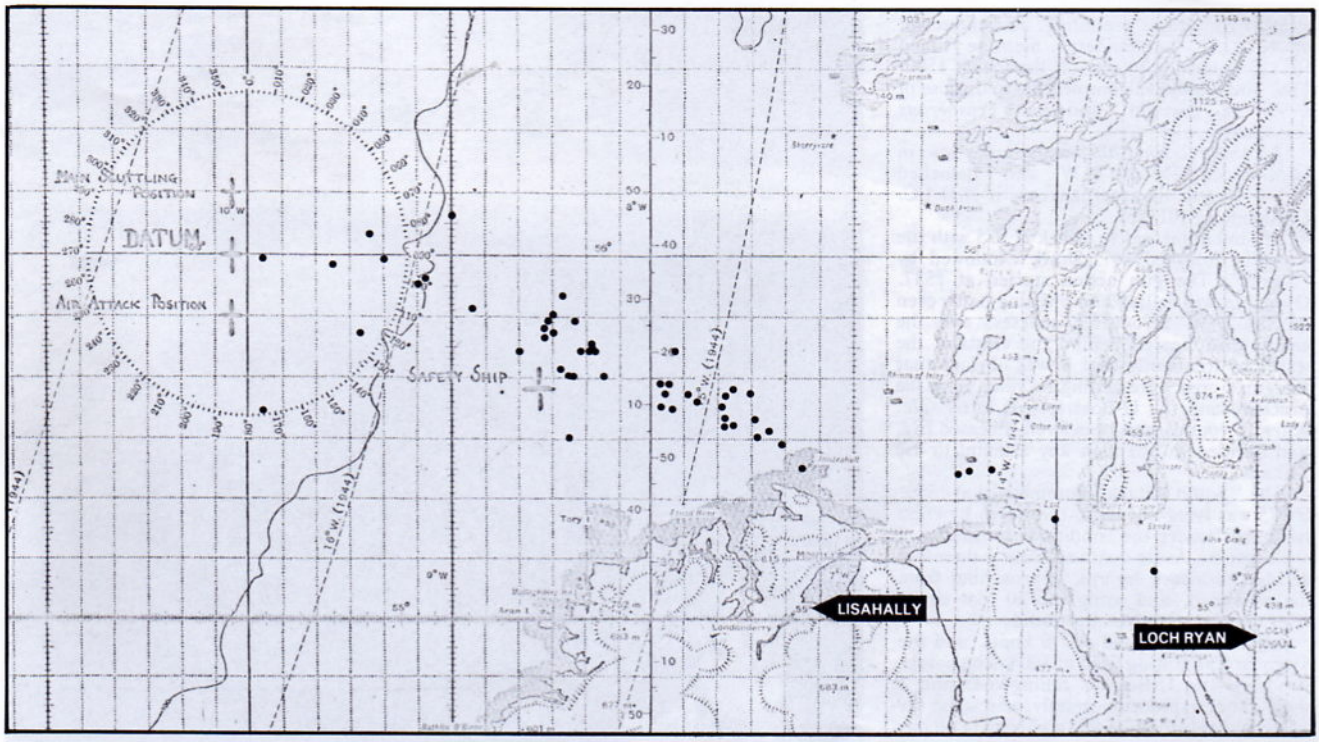
The eighty-six Loch Ryan U-Boats were cleared first as they had the longest voyage to the scuttling area. Thereafter escort vessels and tugs moved to Northern Ireland to tow the remaining boats from Lisahally, up river from Loch Foyle. There all the U-Boats (except four Type XXI which were immobile) were to move under their own power to Moville, near the mouth of the loch, using German steaming crews from which point the towing vessels would secure their tow. Once successfully underway, the U-Boat was to stop engines and take out the clutches and switch on navigation lights. At this signal, a high-speed launch closed the submarine to take off the skeleton crew who were then returned to the next U-Boat in line. This way it was planned to move six submarines per day.

In the event Operation DEADLIGHT did not proceed as smoothly as had been planned. In Scotland, the U-Boats lay in a very exposed berth and, in the opinion of the naval officer in charge, the resulting bumping affected their seaworthiness. Also the towing bridles were literally the weakest link in the chain and the ships detailed for towing, with the exception of the tugs, were totally unsuited to the task. The strong wind in Loch Ryan and the sluicing tide off Moville made 'taking into tow' a most hazardous operation and frequently ships found themselves within a few yards of running aground, with the large U-Boat in tow preventing them from steering and the towing wire preventing them from going astern. Although it had been anticipated that some submarines might be lost during the voyage to the scuttling position, the fifty-six U-Boats which were lost or sunk en route was virtually fifty per cent of the total (see table).

On January 7, 1946 the final part of the operation took place when *U-1010*, *U-1023* and *U-2511* left Loch Foyle accompanied by HMS *Templar*. All three foundered in

Above: **December 1 and HMS Mendip, a Hunt class destroyer, tows U-2325 to the scuttling point (see chart).** *Below:* **Another submarine is taken in tow by the frigate HMS Rupert (Associated Press).**





A reproduction of the official chart for the operation. The dots indicate the positions where U-Boats foundered en route according to the table below (Public Record Office).

positions other than the designated scuttling point and, all told, *Templar* was only able to mount one successful attack which was against *U-1109* on January 6.

Two U-Boats had been held back from the main operation, one being a Type XXI, *U-3514*, which was being retained pending the safe arrival of the *U-3515* which had been allocated to the Soviet Union. On February 7, 1946 orders came for *U-3514* and *U-975* (a Type VIIc) to be sunk in Position XX and, weather permitting, the two submarines were to be taken to sea two days later. After a false start, in which both the towing vessel (*Prosperous*) and the *U-3514* went aground, the operation got under way on February 9. Lieutenant Commander P. U. Sherwood, commanding the escort vessel HMS *Loch Arkaig*, described what happened to the last two U-Boats in his report dated February 12:

'All ships and U-Boats sailed from Lisahally in accordance with the programme and at 1358 on Saturday 9th of February H.M.S. *Loch Shin* had secured *U-975* at short stay off Moville, and was proceeding to seaward. I followed *Loch Shin* past Magilligan Point, and when he had secured his ocean tow at 1523 and was proceeding slowly towards Lough Foyle buoy, I returned to Moville to await H.M. Tug *Prosperous* and *U-3514*, reporting the situation in my message timed 091547.

'On receipt of *Prosperous*' message timed 091609 I proceeded to re-join *Loch Shin*, reporting my intention in my message timed 091620.

'The passage of the tow was uneventful, but the weather conditions prevailing prevented *Loch Shin* from making more than 4 to 5 knots. The sea and swell were 44 from a direction 280 degrees, and the wind force 6 from the same direction.

'In view of the increased swell to the south of Inishtrahull, I altered the course of the Group to pass north of the island as I considered the risk of the tow parting in the deep minefield far less than for it to part in the comparatively confined waters and heavy swell to the southward. My decision was further influenced by the fact that the Group would be passing Inishtrahull after dark in bad visibility.

'By dawn on Sunday the 10th, it was evident that the Group would not reach position "XX" before dark on Sunday evening, I did not want to deal with *U-975* after dark in the

U-2363 heads out to sea from Loch Ryan on November 26.

POSITIONS OF U-BOATS FOUNDERED EN ROUTE

No. of U-Boats	All Positions North and West					
	Latitude			Longitude		
1	55°	25'	00"	06°	25'	51"
2	55°	35'	00"	07°	54'	00"
1	55°	48'	30"	08°	33'	00"
1	55°	32'	50"	07°	38'	10"
1	55°	44'	00"	07°	52'	00"
1	55°	08'	04"	05°	30'	01"
1	55°	32'	50"	07°	29'	15"
1	55°	16'	48"	05°	59'	27"
1	55°	38'	30"	07°	57'	00"
1	55°	38'	40"	07°	54'	00"
1	55°	53'	00"	08°	27'	00"
1	55°	50'	00"	08°	30'	00"
1	55°	25'	00"	06°	19'	10"
1	55°	37'	00"	07°	56'	00"
1	55°	30'	32"	07°	27'	09"
1	55°	28'	50"	07°	20'	40"
1	55°	40'	05"	08°	25'	00"
1	55°	35'	00"	07°	57'	00"
1	55°	31'	05"	07°	24'	00"
1	55°	59'	00"	09°	55'	00"
1	55°	35'	00"	07°	39'	00"
1	55°	36'	00"	07°	46'	00"
1	55°	40'	00"	08°	24'	00"
1	55°	44'	00"	08°	18'	00"
1	55°	58'	00"	09°	35'	00"
1	55°	34'	00"	09°	56'	00"
1	55°	37'	00"	07°	38'	30"
1	55°	47'	00"	08°	30'	00"
1	55°	37'	09"	07°	49'	05"
1	55°	56'	30"	09°	08'	00"
1	55°	45'	00"	08°	19'	00"
1	55°	24'	12"	06°	29'	40"
1	55°	51'	00"	08°	54'	00"
1	55°	46'	00"	08°	32'	00"
1	55°	40'	30"	08°	15'	10"
1	55°	32'	00"	07°	35'	00"
1	55°	47'	00"	09°	27'	00"
1	55°	41'	00"	08°	28'	00"
1	55°	30'	00"	08°	25'	00"
3	55°	44'	00"	08°	40'	00"
1	55°	25'	03"	07°	15'	06"
1	55°	44'	00"	08°	19'	00"
1	55°	44'	00"	08°	21'	00"
1	55°	45'	00"	08°	18'	00"
1	56°	03'	00"	09°	24'	00"
2	56°	06'	00"	09°	00'	00"
1	55°	55'	00"	09°	10'	00"
1	55°	59'	00"	09°	20'	00"
1	55°	37'	12"	07°	30'	00"
1	55°	38'	00"	07°	35'	30"
1	55°	49'	00"	08°	31'	00"
1	55°	33'	08"	07°	38'	07"
1	55°	49'	00"	08°	24'	00"

weather conditions prevailing, and on receipt of N.O.I.C. Londonderry message timed 101125 I decided to cast off the tow at 1500. This would allow me ample time to dispose of *U-975* in daylight, and join *Prosperous* reasonably early.

'At 1500, *Loch Shin* cast off the tow in position 55. 42N. 09. 01W., and I detached her to Rosyth in accordance with N.O.I.C. Londonderry 101125.

'My intention was to attack *U-975* with the 4" gun, followed by "Shark" followed by "Squid". The gun action started at 1537. Own ship was rolling and pitching badly even on the most favourable courses, and the enemy disappeared behind the crests of the waves so frequently that it was obvious that the gun's crew were getting no value from the practice, and the U-Boat looked fairly safe. After 15 rounds had been fired, I ceased fire, and decided to abandon any attempt to use "Shark".

'The "Squid Attack" commenced at 1559. *U-975* was lying abeam to the North by West swell, but under the conditions prevailing, I could get no Asdic contact at all. I therefore decided to attack by eye, approaching from the westward, and using the 20 foot single layer manual setting on the Squid.

'My attacking speed was 8 knots, and the Starboard Mounting fired at 1608. The bombs straddled the U-Boat, 2 falling over and 1 short. They exploded correctly, and when the water had subsided, *U-975* was lying in an oily scum, the only visual damage being an apparent split in the casing forward, and some damage on the "Band Stand" and Conning Tower. However, she slowly trimmed by the bows on an even keel and stood on her nose, and the stern disappeared below the surface at 1610 in position 55.42N. 09.01W. I reported the situation in my message timed 101624, and shaped a course 100 degrees at 18 knots to join *Prosperous*.

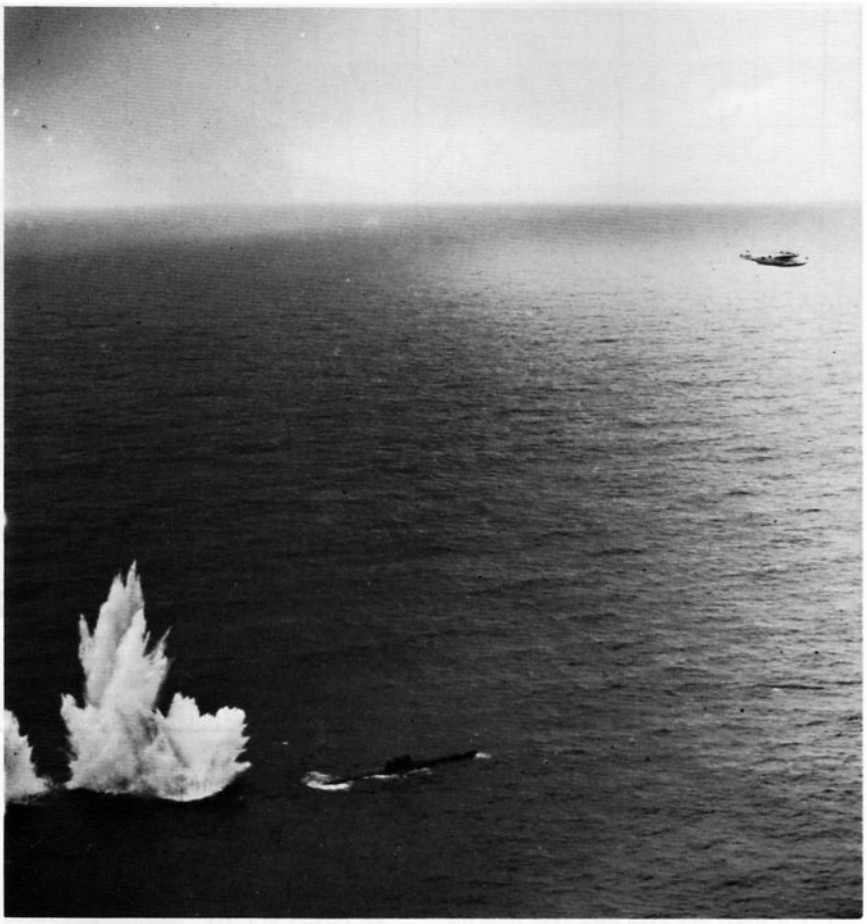
'After homing on to *Prosperous* I reported that I was in company with her in position 55. 20N. 06. 58W. in my message 102019. *Prosperous* was having slight difficulty with the tow, and could only maintain a speed of 3 to 4 knots through the night.

'On Monday afternoon, February 11th, the wind, sea and swell moderated considerably and the tow increased speed to about 5 knots.

'Position "XX" was reached at 0900 on Tuesday 12th February at which time I ordered *Prosperous* to cast off the tow and proceed to Moville.

'At 0936 I opened fire with the 4" gun, scoring one hit on the casing forward of the conning tower at 2000 yards. After 5 rounds I ceased fire, then straffed *U-3514* with close range weapons.

'At 0958 I opened fire with "Shark" at a range of 800 yards. There was a fair amount of movement on the ship in the westerly swell, but Asdic conditions were good and contact was firm. Of six projectiles fired, two hits were obtained and exploded amidships on the casing in line with the conning tower. A third "Shark" hit and ricocheted off the conning tower without exploding. The hits were obtained at 1002 and 1002½. I had intended to follow this up with a "Squid Attack", but the range was too short, and before I could open out to gain a reasonable attacking position, the U-Boat had plunged nose down with its



Above: **A Sunderland of No. 201 Squadron (based at Castle Archdale for DEADLIGHT) has a near miss on a Type VIIC.** *Below:* **A Mossie from No. 132 OTU, Ballykelly, attacks with a rocket salvo (fitted with J-type warheads). These spectacular photographs came our way via Ian Henderson of the Northern Ireland Tourist Board (see issue No. 34).**

tern standing vertically in the air. It sank quickly, the stern disappearing at 1004 in position 56. 00N. 10.05W. Contact was held with "Q" for a short time, and Type 147B recorded the depth of the U-Boat up to 600 feet. After that all contact was lost, and there remained only an oil patch on the surface.

'I reported the situation in my message timed 121016 and shaped course for Moville, overtaking *Prosperous* at 1120. She reported having had an engine breakdown but was just starting to go ahead again. I waited until certain that she was alright, then left her.

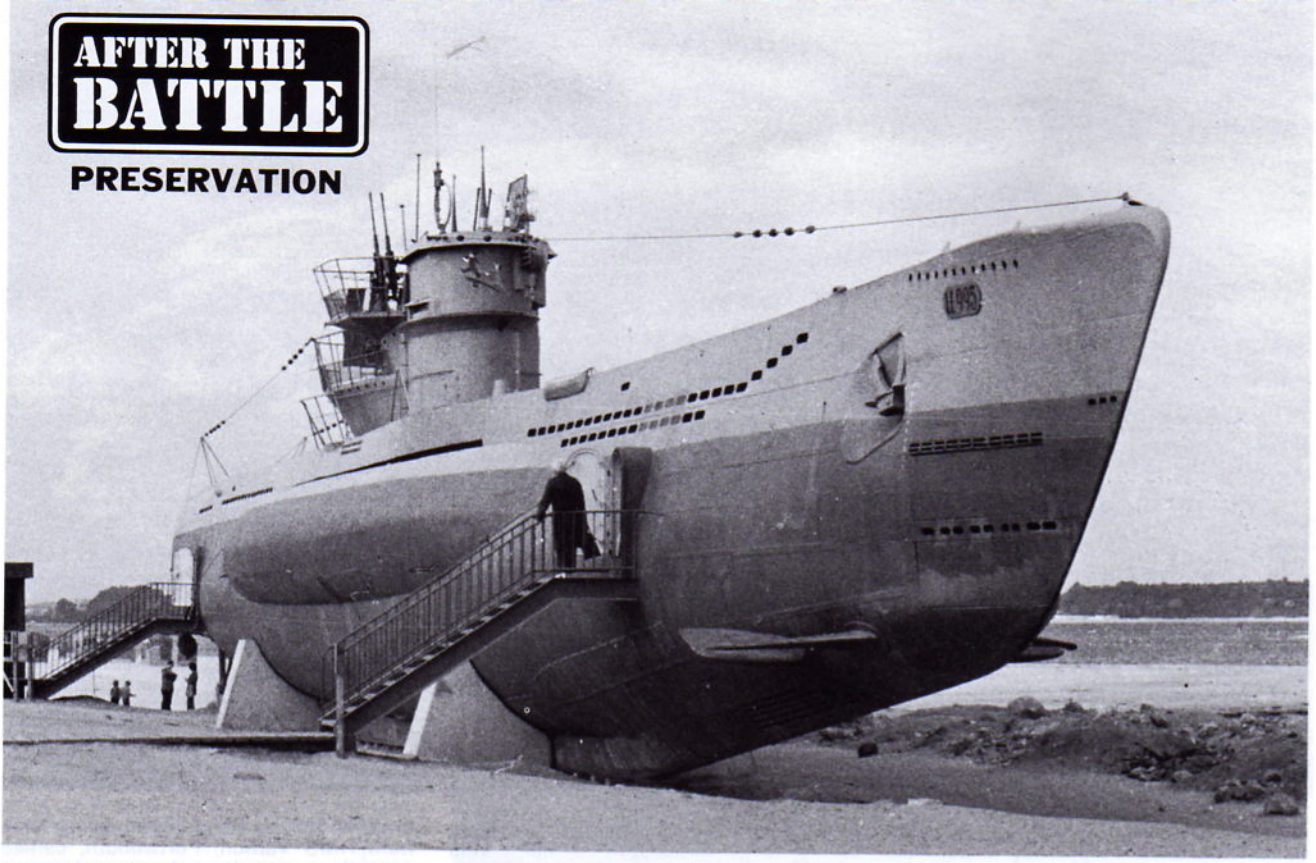
'At 1150 I blew the Steering Engine Steam Trap Drain Pipe, and had to steer by main engines until 1227 by which time temporary repairs had been effected.

'*Loch Arkaig* passed Dunagree Point at 1715 on the 12th February, 1946, and proceeded to Londonderry.'

In June 1979, a Royal Naval diving tear from HMS Vernon, Portsmouth, carrie out a short operation to locate and inspec two of the scuttled U-Boats. The wreck were located at a depth of 135 metres b echo sounder from HMS Reclaim backe up by magnetometer readings. On submarine was definitely identified as Type VII C/41 and the other was believe to be the same.

AFTER THE BATTLE

PRESERVATION



THE STORY OF THE U-995

BY LIONEL HILLYER

Although the Battle of the Atlantic was not decided until mid-1943, it may be stated, in hindsight, that the fate of the U-Boats was sealed in 1941. In that year four of the ace submarine captains, Prien (*U-47*), Schepke (*U-100*), Kretschmer (*U-99*) and Endrass (*U-567*), were eliminated but, more important, was that of the thirty-five U-Boats dealt with by the Royal Navy one, *U-110* (Lemp), was boarded and taken under tow and another, *U-570* (Rahmlow), actually surrendered and was brought into port. The significance was the capture by the Royal Navy, before the submarine sank, of the charts, codebooks and Enigma coding-machine of *U-110*, (which remained a secret until long after the war), as well as the extensive trials with *U-570* which produced information of inestimatible value to the anti-U-Boat forces. Furthermore, from March 1941, the US Navy allocated three destroyer flotillas and five flying-boat squadrons for convoy patrols in the North Atlantic and from the summer the Royal Navy and Royal Canadian Navy escorts were in a position to guarantee close escort for the complete convoy journey between Canada and the UK. Asdic (Sonar) was in use — soon to be joined by other technical advantages such as 'Huff-Duff' as well as very long range aircraft which closed the 'air gap' thus sealing the fate of the U-Boats.

Although they sank some 2,800 Allied merchant ships during the 1939/45 war, as well as 148 Allied warships (not counting those of the USSR) including two battleships (*Royal Oak* and *Barham*); three aircraft carriers (*Courageous, Ark Royal* and *Eagle*); five escort carriers (*Audacity, Avenger, Nabob, Thane* and *USS Block Island*); six cruisers (*Dunedin, Galatea, Naiad, Edinburgh, Hermione* and *Penelope*); forty-one destroyers (27 RN, 9 USN, 2 RCN, one each Norway, Holland and Poland); fifteen frigates (13 RN, 2 RCN); thirty-four sloops and corvettes (27 RN, 6 RCN, 1 RAN), the losses of the submarine arm of the German Navy were the highest in the German Armed Forces, indeed, probably of any specialist arm of all the combatant countries:

1,131 U-Boats were commissioned
863 U-Boats went on operational patrols
754 U-Boats were sunk or damaged beyond repair in port.

Of the 39,000 officers and men who served on U-Boats, 27,491 are recorded as killed in action or missing presumed lost at sea; about 5,000 became prisoners-of-war and the remainder, some 6,510, surrendered at sea or in port in May 1945. The percentage of German submariners lost was therefore 70.5 per cent.

The U-995 entering her home base of Narvik in February 1945 after a patrol in northern waters (Stalling Verlag).

U-995 was a typical ocean-going submarine of the VIIC/41 type, displacing 759 tons surfaced and 1,070 tons submerged. She was built at the famous Blohm & Voss shipyard at Hamburg, launched on July 22, 1943 and commissioned on September 16 the same year. Prior to this she was damaged by bombing. She then sailed down the Elbe and along the Kiel Canal to the Baltic and joined the 5th U-Boat Flotilla at Kiel. Six months' of working-up and training followed under the first CO, Kapitaenleutnant Walther Koehntopp.

The crew was typical of the then German submarine service, being young — average age of U-Boat captains was twenty-five and the crew twenty-one — and well-trained. The inexperience of the bulk of the crew on commissioning was counterbalanced by a leavening of experienced officers, CPOs and petty officers, although not always in submarines. One veteran of the *U-995* was Funkmaat Joachim Guerke who had sailed on nine Atlantic patrols with the U-Boat ace Kapitaenleutnant Rolf Muetzelburg.

The lack of experience was counterbalanced by effective discipline and good morale, although the bulk of the crew was fully aware of the poor chances of survival at that stage of the war.

THE MOVE TO NORWAY

On April 25, 1944, *U-995* sailed from Kiel as an operational submarine ready for her first patrol into the Atlantic. However, her fate was to be otherwise and *U-995* was allocated to the 14th U-Boat Flotilla at Narvik. One day, at dusk, she was suddenly attacked by a British aircraft — typically reported as a Sunderland — from low-lying clouds and was damaged by depth charges. She immediately dived and was able to escape the second attack and proceeded to Kristiansand being constantly harried by aircraft. There then followed a period in dock at Trondheim for repairs, from May 23 to June 30, and *U-995* then joined 13th U-Boat Flotilla which was based at the port.

OPERATIONS OFF NORWAY

From July 1-7, 1944, *U-995* took part in the last large-scale U-Boat attack on a Murmansk convoy. Twenty-five German submarines formed a screen near Jan Meyen Island but the planned interception was a failure as the Allied anti-submarine cover was such that the U-Boats were constantly forced to dive and so lost contact — they were hardly permitted to surface even to recharge batteries and ventilate the submarines. Contact was not made with the convoy, losses were high among the U-Boats, and others were damaged — such as *U-995* which was forced to return to Trondheim where she was again in dock for repairs, this time from August 1-17, 1944. The submarine was not ready for operations again until late in the month.

During this period certain members of the crew expressed dissatisfaction with the offensive spirit of the captain. It was stated that he instigated avoiding action in the face of enemy ships, instead of attacking. Although on one occasion the Engineer Officer, Rudolf Wellnitz, warned one of the crew about making comments of this sort, it seems that this attitude was not shared by all, such as the communications specialists who had a better overall view.

OPERATIONS IN THE BARENTS SEA

From late August 1944 until the end of the war, *U-995* mainly operated in the Barents Sea. The first patrol there was of about two weeks' duration until mid-September and the task was to lay mines south of Novaya Zemlya in order to close the straits into the Kara Sea, the only ice-free route during the summer. The submarine could carry no torpedoes as the mines were ejected through the torpedo tubes, and it was no simple mission as *U-995* had to lay these while running on the surface in shallow water quite close to two Soviet naval bases, one on each side of her.

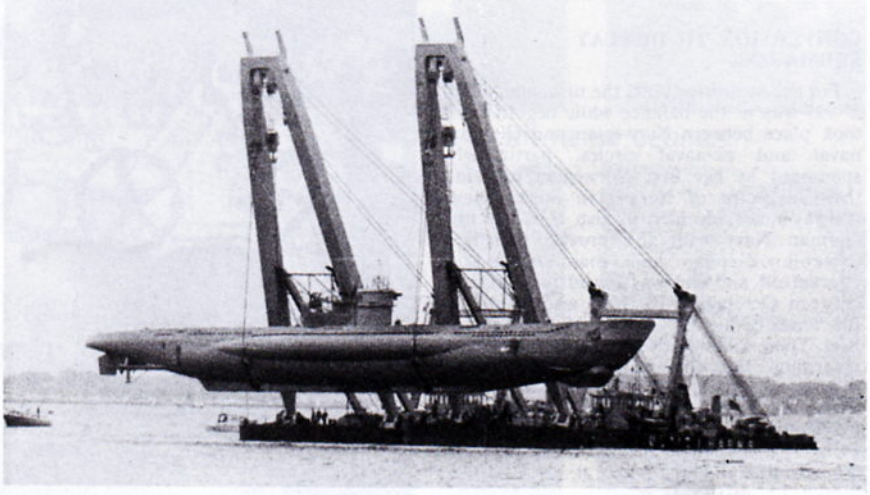
The last muster before the crew left the submarine in May 1945. (Stalling Velag).

The next patrol, of only a few days duration, was made most difficult by British warships and aircraft and yet another convoy got through to Murmansk without *U-995* getting into a sighting position. She then returned to Narvik where the submarine had meanwhile joined the 14th U-Boat Flotilla. Here the captain was relieved of his command because he 'had not reached the expectations set by the SNO Submarines (North)'. This officer was the U-Boat ace, Fregattenkapitaen Reinhard ('Teddy') Suhren. The feeling among the crew of *U-995* at this news was mixed . . . because the new captain was Oberleutnant Hans Georg Hess who, at twenty-one seemed too young and inexperienced in submarines. He had in fact already served for over four years in minesweepers and submarines but his problem was how to be accepted by the relatively experienced crew. Hess, a Berliner, decided to motivate them but not to be familiar. Morale on board at Narvik, probably due to the lack of operational success, was not improved by the strict discipline initially applied by the new CO. Just about this time, the *U-315*, commanded by Oberleutnant Zoller and also Narvik-based, failed to get through the anti-submarine nets in Kola Fiord and sink the Soviet battleship *Archangelsk* (ex-*Royal Sovereign*) and this could hardly have helped the overall situation. However, the captain showed willingness to learn from his subordinates and this was accepted by the bulk of the crew and on the next patrol he soon gained their respect and support on account of his attitude and energetic approach.

The next patrol commenced in mid-October and *U-995* sighted a strongly escorted convoy near Bear Island, en route to Murmansk. An aircraft-carrier, a heavy cruiser and other warships were identified together with air cover. *U-995* managed to get within five miles and then dived, but even at maximum speed she could not get into a position to fire torpedoes and then a change of course by the convoy put an end to her chances. On the next day *U-995* was forced to dive by aircraft and so only caught a brief sighting of smoke from the convoy beyond the horizon.

Two weeks later, while en route to Murmansk on the surface, the communications office reported that *U-995* had been located by radar and, at the same time, propellor sounds were noted. After a few minutes, and in spite of the darkness of the night, the silhouette of one destroyer was made out at about two miles, then three more of a British anti-submarine group now seeking *U-995*. Parachute flares drifted slowly down but *U-995* was not spotted, while the destroyers were illuminated against the dark horizon. Exactly at midnight the first torpedo was fired from the stern tube. It was heard to detonate and thereafter the propellors of only three warships were heard. A second torpedo was fired from bow tube I and the submarine crash-dived and almost immediately two more explosions were recorded. The remaining warships stayed in the vicinity for several days and continued depth-charge attacks to ensure that *U-995* was kept away from another convoy.

On the next patrol the submarine attacked small Soviet convoys off the Murmansk coast, sinking one freighter and damaging two others. At Christmas 1944 two Russian sailors were picked up, the sole survivors, respectively, of a Soviet fishing boat and an armed trawler. Nick-named 'Alex' and 'Ivan' by the German sailors, these two soon recovered and were landed safely at Tromso. On this patrol *U-995* was almost sunk by one of her own 'Zaunkoenig' acoustic torpedoes which she fired at a Soviet patrol vessel east of Murmansk, when the torpedo suddenly turned



After being restored at the Kiel navy yard, the U-995 was brought to the memorial site at Laboe by lifting barge. However, due to a miscalculation, the water was too shallow to permit the barge to reach the shore; as this Associated Press picture caption ironically stated: 'High, but not as dry as hoped'.

round and came back towards the submarine. All machinery was switched off while the crew waited, with bated breath, until the torpedo finally exploded at a safe distance. On another occasion, at the entrance to the White Sea, a brief gunnery action took place with a Soviet coastal freighter which even went over to the attack — assisted by her two escorts — before being sunk by a torpedo. *U-995* retired on the surface under the cover of snow showers.

In February 1945, *U-995* undertook a mission into the Soviet-occupied Finnish port of Kirkenes: this was on the initiative of the captain and the submarine passed through the 32-kilometre-long fiord at night on the surface although trimmed down so that only the conning tower was above the surface, then waited for daylight on the seabed of the roads. On approaching the harbour submerged, *U-995* ran aground in shallow water at a steep angle and had to wait for nightfall in order to risk surfacing. This took place at dusk and the submarine was then able to enter the harbour where it sank the only enemy ship, a Soviet freighter, with one torpedo. A Russian escort made a run at *U-995*'s periscope but the Engineer Officer was able to lower it promptly and the submarine finally departed on the surface through the fiord to the open sea. A few days later the Captain, Oberleutnant Hess, was awarded the Knight's Cross (Ritterkreuz) of the Iron Cross for his services.

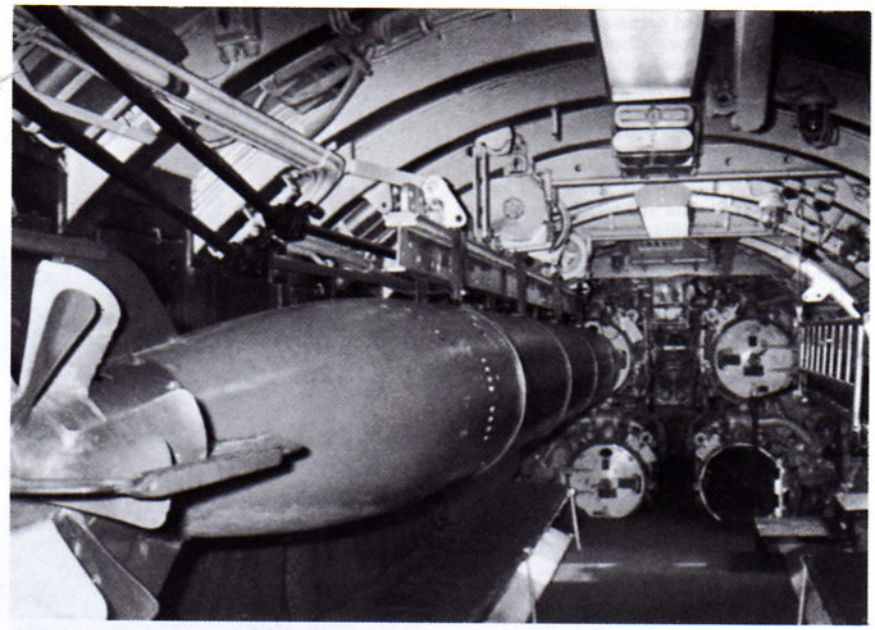
Later *U-995* sank an escort vessel, one of an anti-submarine group off Murmansk, which led to a long series of depth-charge attacks. As the sea there is relatively shallow, this was a strenuous experience for the crew. On March 14, 1945, *U-995* sailed on her last wartime patrol from Narvik and was able to attack a Murmansk convoy on its final approach to the east of the port in the Barents Sea: she claimed torpedo hits on two Liberty ships one of which sank. The submarine completed this patrol on March 23 and entered dock at Trondheim in order to have a snorkel fitted. On May 8 she was decommissioned as unseaworthy and for this reason *U-995* did not proceed to the United Kingdom as part of Operation DEADLIGHT but passed into Norwegian hands.

SERVICE IN THE ROYAL NORWEGIAN NAVY

After an interlude of seven years, *U-995* was commissioned as RNS *Kaura* on December 6, 1952. Her first captain was Lieutenant Nils Tiltnes, RNN. In 1954 the submarine was modernised and her conning tower streamlined. For almost five years RNS *Kaura* served as a training submarine under the command of various captains, finally Lieutenant Ole K. Thomesen, RNN, when she was decommissioned on December 15, 1962.

CONVERSION TO DISPLAY SUBMARINE

For the next three years the ultimate fate of *U-995* was in the balance while negotiations took place between Norwegian and German naval and ex-naval circles, particularly sponsored by her first Norwegian captain, then Inspector of Norwegian Submarines. Norway finally decided to give *U-995* to the German Navy with the proviso that her suitable display and maintenance be guaranteed and she was towed to Germany between October 10-18, 1965 and placed in the hands of the Naval Base (Marinearsenal) Kiel. There followed five years of negotiations regarding the financing, final location, spheres of responsibility, etc., until the German Naval Association (Deutscher Marinebund) took her over. Then, during 1970-71, *U-995* was renovated and restored to her operational state of May 8, 1945 and on March 13, 1972 was lifted by two Magnus floating cranes, towed by tugs, and installed on the shore in front of the German Naval Memorial at Laboe, on the eastern bank of Kiel Fiord.



TECHNICAL DATA OF U-995

Ocean-going type VIIC/41 — launched in Hamburg, July 22, 1943

Main measurements

Overall length: 67.23 metres
Overall breadth: 6.20 metres
Displacement (surfaced): 759 tons
Displacement (submerged): 1,070 tons
Projected diving limit: 120metres in 30 seconds
(240 metres was actually reached)

Machinery

Two MAN six-cylinder, four-stroke diesel engines: 1,400 hp each at 470 revolutions (fuel: 113.5 tons)
Two BBC electro-motors: 375 hp each at 295 revolutions
Maximum surface speed: 17 knots
Maximum submerged speed: 7.6 knots
Two accumulator batteries at 20 hours use: 9,160 Ah
Range surfaced: 10,000 nautical miles at 7 knots
Range submerged: 130 nautical miles at 2 knots

Armament

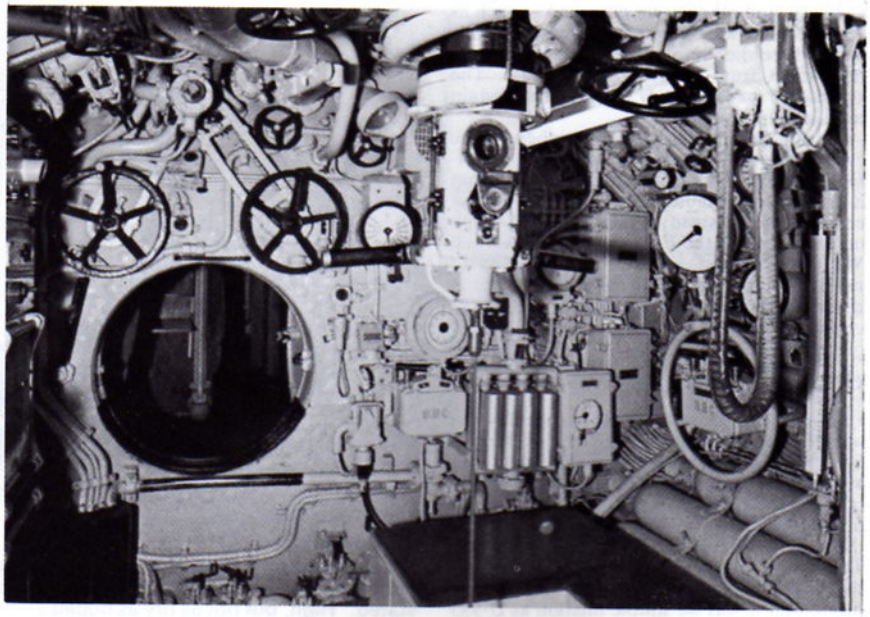
Five 21in torpedo tubes (four bow/one stern) with 21 torpedoes or 26-39 mines
One 37mm M 42 U-Flak and four 20mm M 38 U-twin mounted

THE ORIGINAL CREW OF U-995

The crew consisted of four officers (Captain, 1st Lieutenant, Engineer Officer, two watch-keeping officers), four chief petty officers and 27 to 34 junior ratings so that generally there were about fifty on each patrol.

In all seven officers (Lt-Commander Koehntopp, Oberleutnant Hess, the two captains; Rudolph Wellnitz, Engineer Officer; Ruediger Schroeder, 1st Lieutenant and the watch-keeping officers Karl-Heinz Boehm, Fritz von Bremen and Karl Boese) and 61 CPO, POs and junior ratings — a total of 68 — who served on this submarine, survived the war and were either soon demobbed or were in PoW camps: one has since died.

Generally there are crew reunions annually — mostly in the summer. Hans Georg Hess, the last Captain of *U-995*, recorded reminiscences of the crew and published these, together with selected then and now photographs of the crew, some of which are reproduced here, in a book entitled *Die Maenner von U-995* which appeared in 1979. (Readers interested in the publication, (German text) should write to Stalling Verlag, GmbH, Postfach 2580, 2900 Oldenburg, West Germany. Price DM13.80 adding DM1.00 surface post.)



KOMMANDANT HANS GEORG HESS

MECHANIKERMAAT HANNES BITTNER

SEEMANN BERNHARD NOWAK

SANITÄTSMAAT HERBERT BRÜCKNER

MASCHINENMAAT HERMANN ZUMSTEG

SEEMANN HEINZ BEUSCH

MATROSENGEFREITER FRITZ ARAND

FUNKGAST ALFRED OTTINE